Strategic Plan Traffic Records Improvement

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(Please Contact North Carolina Governor's Highway Safety Program for a complete copy)

1. Executive Summary

The goal of the highway safety has always been to prevent unnecessary death and disability from motor vehicle crashes. The economic and social consequences of these crashes are severe, presently resulting in more than $3 billion in economic losses annually in North Carolina.

The use of accurate and timely information on its characteristics and performance is critical to development of policies and programs which keep the state's roadway transportation system functioning.

Likewise, reducing the number, severity and cost of motor vehicle crashes requires increasing the ability to plan, execute, coordinate and evaluate safety and injury control policy through the linkage to motor vehicle crash information with medical care and financial data.

Thus, the stakeholders for a comprehensively linked traffic records system in North Carolina run the gamut of those involved, from traffic engineers through law enforcement to emergency medical, injury control and trauma care providers to the general public.

Every citizen in North Carolina, knowingly or unknowingly, has a stake in an improved traffic records system that links highway, crash, driver and injury data.

One of the major links required to support such a safety management process is the Collision Reports System, currently administered by the NC Division of Motor Vehicles (DMV), Collision Reports and General Services Section. In 1992, the Governor's Highway Safety Program (GHSP) commissioned the *State of North Carolina Comprehensive Review of Motor Vehicle and Injury Records Systems.* This study clearly identified that the accuracy and availability of information from that link is not adequate to support the needs of State agencies in long range planning and traffic engineering safety programs. Millions of dollars are spent annually based on the data and analysis acquired from the crash data, yet the current system does not readily support the analysis of crash patterns and determination of the effectiveness of engineering countermeasures through the study of crash data by location. Thais is due to missing or inaccurate data, multiple databases maintained in outdated technology, and unfriendly or non-existent user interfaces. The Collision Reports System is the only source of crash data, and the current system cannot be practically updated to support modern requirements of timeliness and quality being placed on researchers, highway planners, and custodians of the data.

Several high level studies have been completed, and no one questions that the system needs to be updated, yet efforts to secure funding to re-engineer the process have not succeeded. Largely because of the complexity of potential external system interfaces, and the age of the existing system, the agencies involved have not agreed upon a clear set of requirements.

This Plan recommends the strategy of dividing the needed improvements to the traffic records system into multiple phases. Phase 1 is the key infrastructure project necessary to support additional enhancements, beginning with development of a relational database with crash related data, and providing for a planned evolution of the Collision Reports System from the technology of the 1970's to modern technology that will serve the State into the 21st Century.

The phased re-engineering process will make the system a valuable State-wide resource, providing the base for integration of other on going State initiatives, such as mobile data computers with global positioning system equipment and emergency response vehicles.

With the phased approach, funding for the effort can be spread over time as necessary due to budget constraints, yet the benefits from one Phase will accumulate while the next Phase is being defined and developed. The Strategic Plan focuses on Phase 1, but recognizes that the effort does not end there. System requirements beyond Phase 1 will likely be driven by changes in the use of linear referencing systems and the storage of roadway inventory data. North Carolina will soon be ready to move toward linkage of crash data to Emergency Medical Services (EMS) records, driver history, court arrest records, and vehicle information. In the future, links to medical cost data from trauma centers, emergency departments, and long term care facilities will be established to make it possible to assess the true cost of crash related injuries.

Potential crash data related will be identified, prioritized and promoted for funding through the TRCC to ensure coordination with the overall goal of a State0-wide modern Safety Management System for North Carolina.

Figure 1 contains a summary level view of the tasks and projected cost to complete the Phase 1 Infrastructure Project: