

Statewide ITS Earmark Evaluation

Part B

executive summary

prepared for

Wisconsin Department of Transportation

prepared by

Cambridge Systematics, Inc.

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13. ABSTRACT (Maximum 200 words) As the recipient of ITS Integration Program funds, WisDOT is required to perform a self-evaluation on each program supported by the funds. The report includes the results of that evaluation for five projects. Specific projects include: 1) Statewide Traveler Information and Architecture Plan; 2) The Fox Cities, or U.S. 41 ITS Corridor Plan; 3) LaCrosse District Interconnected Signal Plan; 4) Automated Oversize/Overweight Information Technology (IT) Design Project; and 5) Portable Changeable Message Sign (CMS) Project. In summary, the evaluation team found that the earmark projects were helping to advance the implementation of ITS in the State of Wisconsin. The ITS Architecture project and U.S. 41/Fox Cities Plan have involved stakeholders throughout the State in developing an ITS program that is responsive to local needs. The Portable Message Sign program and the oversize/overweight permitting system involved project implementation and actually demonstrated the effectiveness of using technology to improve efficiency.					
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Table of Contents

1.0 Executive Summary..... ES-1

Executive Summary

The Wisconsin Department of Transportation (WisDOT) requested consultant support in the development and implementation of evaluation plans for two projects funded under the Federal Highway Administration's (FHWA) Intelligent Transportation System (ITS) Integration Program. As the recipient of ITS Integration Program funds, WisDOT is required to perform a self-evaluation on each program supported by the funds.

This evaluation involves Project B which includes evaluation of the Statewide Traveler Information plans, and deployment plans in the Fox Cities and LaCrosse areas. Specific projects include:

1. Statewide Traveler Information and Architecture Plan;
2. The Fox Cities Plan;
3. LaCrosse District Interconnected Signal Plan;
4. Automated Oversize/Overweight Information Technology (IT) Design Project; and
5. Portable Changeable Message Sign (CMS) Project.

The evaluation team found that the earmark projects were helping to advance the implementation of ITS in the State of Wisconsin. The ITS Architecture project and U.S. 41/Fox Cities Plan have involved stakeholders throughout the State in developing an ITS program that is responsive to local needs. The Portable Message Sign program and the Oversize/overweight permitting system involved project implementation and actually demonstrated the effectiveness of using technology to improve efficiency. In the case of the Portable Message Sign project, both WisDOT and local officials realized benefits through purchase and deployment of field equipment. The findings indicate that the availability of the equipment encouraged interagency cooperation and that these agencies identified applications that were not originally envisioned. The oversize/overweight automated permitting project is an ambitious undertaking by WisDOT to streamline and automate this process. The results of the evaluation demonstrated clearly that this initiative has provided a higher level of customer service for permit applicants.

The evaluation team found that WisDOT conducted the planning and implementation process in a "collegiate" manner, which involved most if not all divisions of WisDOT, as well as local governments, law enforcement, transit, emergency services, and private firms. Nearly all participants of the evaluation agreed that WisDOT gave all stakeholders a chance to ensure the compatibility of the projects' goals and objectives with their own. There also was significant progress toward an important goal, which is to integrate the planning process for ITS projects with WisDOT's short- and long-range plans.

Also, WisDOT continues to solicit advice and recommendations on how to improve the current system, as shown mostly in the portable CMS project. One common trait shared by the projects evaluated was the strength of the inter-agency and intra-agency relationships, which seemed to have been cultivated over the years within WisDOT.

One of the main goals of the self-evaluation process was to assess the impacts of the ITS investment on mobility, safety, and efficiency. However, due to lack of resources and data, very limited quantitative evaluation was performed. In addition, because the products of several of the projects were plans, the evaluation team focused on the organizational and institutional issues related to the development of the plan, through surveys directed towards the stakeholders.

The FHWA developed self-assessment guidelines for ITS evaluation that are documented in the ITS Evaluation Resource Guide. The original evaluation plan proposed use of some of the specific measures identified but since three of the projects were in the study phase and the Portable Message Sign project did not have “before” data available, most of the MOE’s could not be applied. Evaluation measures included:

- **Safety, including reduction in overall crash rate, crash-related fatalities and crash-related injuries** – Only the Portable Message Sign project could have a direct impact on this measure. The signs are generally used for short periods of time to support construction activity and an analysis of safety impacts needs to be conducted over a much longer period. As this program is introduced into new Districts and the sample of projects served expands, the ability to evaluate the impact of these signs on work zone safety will improve.
- **Mobility, including reduction in travel time delay, reduction in travel time variability and increase in customer satisfaction** – The Portable Message Sign project is again the only project where these measures could be applied. The limited scope and duration of the program and unavailability of “before” data, however, made measurement of impacts difficult. Measurement of Portable Message Sign impacts may be more feasible in the urban areas of Milwaukee and Madison where ITS systems that are either in place or in the planning stages could be used to collect the needed data.
- **Customer satisfaction** – This was measured for the ITS Architecture project, the Fox Cities plan and the Portable Message Sign project in the sense that agency personnel and stakeholders are the initial “customers” for these efforts. The surveys and discussions conducted for the project indicated that in the study phase a strong stakeholder outreach program is essential to generate interest among both WisDOT District employees and local officials. The response to the Portable Message Sign program showed that actual deployment of practical technology, accompanied by sharing of resources, can generate significant support for ITS programs. In the case of the oversize/overweight permitting system, customers were surveyed directly. Since the effort funded by the ITS earmark is part of a larger project, the feedback is helpful to WisDOT in setting priorities and making adjustments to future activities.
- **Productivity and efficiency** – The Portable Message Sign project, by encouraging resource sharing between State and local agencies, clearly had benefits in terms of

productivity and efficiency. For the oversize/overweight permit project, improved productivity for both WisDOT and their customers was apparent. Survey responses indicated that shortening the lead time necessary for permit application has helped carriers to use their resources more effectively.

One major concern voiced by the stakeholders was the lack of resources, and the unpredictable nature of future funding. Most stakeholders interviewed for the projects believed that they must continue to fight for more funding to get the projects implemented. The stakeholders also learned the importance of finding a “champion” who can take the burden of leadership to get the projects off the ground. Strong leadership can help bridge the gap between the upper management and technical ranks, and unite all stakeholders under common goals and objectives.