



Evaluation Plan

February 2004

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INTRODUCTION

The Midwest Smart Work Zone Deployment Initiative (MwSWZDI) was initiated in 1999 as a Federal Highway Administration (FHWA) Pooled Fund Study intended to coordinate and promote research among the participating states related to safety and mobility in highway work zones. Led by Pat McCoy at the University of Nebraska, the original four states of Iowa, Kansas, Missouri, and Nebraska were joined by Wisconsin in 2001. In 2003, the Nebraska Department of Roads stepped down from its role as lead state, and the Kansas Department of Transportation stepped forward to lead the study. To best facilitate the transition, a new study was initiated with the same title and participants. The study is an ongoing cooperative effort between state Departments of Transportation, universities, and industry. Commercial products are provided by private vendors. State DOTs provide funds, prioritize products with respect to their anticipated benefits to their construction and maintenance activities, and cooperate with university researchers to identify test sites and conduct the evaluations. To date, 47 evaluations of various work zone related products have been conducted or are ongoing. Completed reports and descriptions of ongoing projects can be obtained at Mid-America Transportation Center (MATC) website (www.matc.unl.edu).

PROGRAM PROCESS

For Project Year 2004 (PY 2004, corresponding roughly to Fiscal Year 2004), the programming process has been significantly changed compared to previous years. In the past, the typical process comprised the following steps.

1. The Technical Advisory Committee (TAC) develops problem statements describing the highest priority issues related to work zone safety and mobility.
2. The TAC issues a Request for Proposals (RFP) aimed at vendors of commercial products that address one or more of the problem statements.
3. Vendors submit descriptions of their products and their espoused benefits.
4. The TAC determines which state(s) are most appropriate for evaluating each product based on interest and site availability.
5. University evaluators prepare work plans for each evaluation assigned to their state.
6. The TAC decides by consensus which evaluations will be included in the overall work plan based on discussions of the anticipated usefulness of the results and the availability of funds.

The funding of the overall program was distributed evenly among the participating states.

In 2003, several states expressed the need to reduce their funding level for the study. Additionally, discussions within the TAC resulted in several of the highest priority problem statements describing issues that are more appropriately addressed with synthesis studies than with product evaluations. To accommodate these two issues, a new programming process was developed comprising the following steps.

1. The Technical Advisory Committee (TAC) develops problem statements describing the highest priority issues related to work zone safety and mobility.
2. The TAC issues a Request for Proposals (RFP) aimed at vendors of commercial products that address one or more of the problem statements.
3. Vendors submit descriptions of their products and their espoused benefits.
4. State DOT representatives rank these products by their relative importance to maintenance and construction activities in their respective states.
5. Evaluators prepare proposed work plans addressing the problems statements. The work plans may describe a product evaluation, a synthesis study, or a research study.
6. State representatives rank the proposals based on their respective needs.
7. An aggregate score for each proposal is calculated based on a weighted average of the state rankings. Rankings are weighted based on the funding level from each state.
8. The ranked list of proposals based on aggregate scores is compared against the available funds to determine the disposition of each proposal.¹

For PY 2004, nine problem statements were developed, one of which was sent out to vendors in an RFP. 19 products were proposed for evaluation, three of which pertained to the problem statement.² Nine proposals were submitted by evaluators. Based on state rankings and funding levels, seven of the nine proposals will be funded. Additional funds will be designated for study

¹ I.e., funded or not funded.

² Vendors are encouraged to submit any products for consideration with the understanding that the problem statements are an indication of state priorities.

administrative duties and for a conference to be held in the Fall of 2004 to disseminate information about completed evaluations.

PROJECT YEAR 2004 (PY 2004) PROGRAM

The nine proposals submitted plus the conference and administrative budgets totaled \$296,354. Available funding, including \$20,000 contributed by the FHWA, totaled \$245,000. Two projects were dropped and the conference budget was adjusted to accommodate the overall funding. The participating states and their respective funding levels are shown in Table 1. The resulting program is shown in Table 2.

Table 1. Funding Levels of Participating Agencies.

Agency	Funding level
Iowa	\$ 10,000
Kansas (FY 03)	\$ 25,000
Kansas (FY 04)	\$ 80,000
Missouri	\$ 15,000
Nebraska	\$ 25,000
Wisconsin	\$ 70,000
FHWA	\$ 20,000
Total	\$ 245,000

Table 2. Proposal funding status and level

Proposal	PI	Institution	Amount	Status
Web site and listserve administration	Aemal Khattak	University of Nebraska	\$2,910	Funded
Project Administration	Eric Meyer	Meyer ITS	\$49,222	Funded
Spring 2004 Conference	???	???	\$10,565	Funded
Portable Rumble Strips: Advanced Traffic Markings (ATM) And Recycled Technology, Inc. (RTI)	Alan Horowitz	University of Wisconsin	\$15,177	Funded
Criteria For Portable ATIS In Work Zones: Lane Merge, Travel Time And Speed Advisory Systems	Alan Horowitz	University of Wisconsin	\$27,186	Funded
Synthesis Of Procedures To Forecast And Monitor Work Zone Mobility And Safety Impacts	Tom Maze	Iowa State University	\$34,357	Funded
The Use Of Raised Pavement Markings In Work Zone Applications – A Synthesis Of Practice	Aemal Khattak	University of Nebraska	\$23,666	Funded
Design Of Portable Rumble Strips	Rick Hale	University of Kansas	\$18,640	Funded
	Eric Meyer	Meyer ITS	\$16,530	
Evaluation Of Portable Rumble Strips	Eric Meyer	Meyer ITS	\$24,939	Funded
Work Zone Incident Management Practices: Synthesis Study	Alan Horowitz	University of Wisconsin	\$21,808	Funded
Total Budget for PY 2004			\$245,000	

Projects Not Funded

Temporary Traffic Control Measures And Enforcement Of Traffic Laws In Closed Road (Street) Sections	Stephen Andrle	Iowa State University	\$19,565	Not Funded
Synthesis Of Work Zone Mobility And Safety Impact Procedures	Mark Virkler	University of Missouri	\$29,997	Not Funded

This program and associated work has been approved by the Technical Advisory Committee (TAC). Details of the Work Plan and budget details per project are provided in Appendix A.

APPENDIX A: WORK PLAN

The Midwest Smart Work Zone Deployment Initiative 2004 Work Plan comprises the individual work plan proposals submitted for individual projects that were subsequently included in the approved Study Program. All contracts will be executed between KDOT and the evaluating institution. State DOTs will assist KDOT in monitoring project performance. Changes in project budget or work plan require approval of the TAC. For minor changes, the Project Monitor in the local state DOT shall represent the TAC, deferring to the TAC when deemed appropriate.

Project Budget

Item	KS	NE	WI	IA	NE	KS	KS	WI	Total
Personnel									
Salaries & Wages	\$39,416	\$2,000	\$14,085	\$16,962	\$12,570	\$25,822	\$20,320	\$11,268	\$149,614
Fringe Benefits	\$-	\$-	\$3,709	\$3,870	\$1,770	\$1,799		\$2,967	\$16,168
Subtotal	\$39,416	\$2,000	\$17,794	\$20,832	\$14,340	\$27,621	\$20,320	\$14,235	\$165,782
Other Direct Costs									
Materials & Supplies	\$1,500	\$-	\$500	\$200	\$300	\$1,020	\$3,600	\$400	\$8,320
Printing & Copying	\$1,500	\$-	\$100	\$-	\$-	\$-	\$25	\$100	\$1,825
Postage	\$-	\$-	\$-	\$-	\$-	\$-	\$100	\$-	\$100
Telephone & FAX	\$-	\$-	\$-	\$-	\$-	\$-	\$50	\$-	\$50
Research Equipment	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Travel	\$6,806	\$-	\$100	\$2,000	\$-	\$700	\$847	\$100	\$10,753
Other	\$-	\$-	\$-	\$500	\$1,625	\$-	\$-	\$-	\$2,125
Subtotal	\$9,806	\$-	\$700	\$2,700	\$1,925	\$1,720	\$4,622	\$600	\$23,173
Total Direct Cost	\$49,222	\$2,000	\$18,494	\$23,532	\$16,265	\$29,341	\$24,942	\$14,835	\$188,955
Indirect Cost	\$-	\$910	\$8,892	\$10,825	\$7,401	\$5,829	\$-	\$6,973	\$45,483
Total Cost	\$49,222	\$2,910	\$27,186	\$34,357	\$23,666	\$35,170	\$24,942	\$21,808	\$245,008