

**CALTRANS PROBLEM STATEMENT
FOR
POTENTIAL NATIONAL INTEREST**

I. PROBLEM TITLE

Rural Work Zone Travel Time

II. RESEARCH PROBLEM STATEMENT

Work zones are a necessary and relatively common occurrence on rural highways in order to preserve and improve the transportation system. Though they are necessary, work zones can impose an inconvenience on travelers through unexpected delays. These delays can be long in rural areas on two-lane highways where traffic flow alternate directions. These delays can increase driver stress and frustration, potentially affecting driver behavior within and after the work zone, which could impact the safety of workers and other motorists.

III. LITERATURE SEARCH SUMMARY

Horowitz, AJ., Weisser, I., Notbohm, T. "Diversion From a Rural Work Zone With Traffic-Responsive Variable Message Signage System" Transportation Research Record 1824 (2003): 23-28.

Kumar, M., Galarus D., Graham, S., and Strong, C. "Evaluation of ITS Technologies in Rural Work Zones - Showcase Evaluation 12" (2006).

Pant, PD. "A Portable Real-Time Traffic Control System For Freeway Work Zones" (2000).

Pesti, G., McCoy, PT., Meisinger, MD., Kannan, V. "Evaluation of Work Zone Speed Advisory System" (2004).

Zarean, M., McLean, VA., Pisano, P., McBride, J., "Developing and Testing a Rural Surveillance and Delay Advisory System" (1999).

IV. RESEARCH OBJECTIVE

The objective of this research is to demonstrate ability to display real-time travel time information in rural work zones to increase safety and minimize traveler frustration. Develop and demonstrate the rural ITS application.

V. ESTIMATE OF PROBLEM FUNDING AND RESEARCH PERIOD

Recommended Funding:

\$500,000

VI. URGENCY, PAYOFF POTENTIAL, AND IMPLEMENTATION

No travel times are being provided in many urban areas to enhance mobility and assist drivers in making decisions to get to their destinations. A rural application to help drivers to be better informed and to make travel decisions will be needed in the future.

Please contact the Caltrans member of your committee, sub committee, or task force to express interest or contact Wes Lum at Caltrans (wes.lum@dot.ca.gov).