What is this system for?

This system is geared toward recreational vehicles and heavy trucks and provides motorists with an "active" warning showing they are proceeding at unsafe speeds down a challenging section of roadway. It is designed to elevate driver awareness in attempts of preventing accidents on Highway 14A.

What do I do when the sign displays a message?

Slow down to the advised speed and prepare for the curves ahead.

How long will the Dynamic Warning Sign be present?

The sign and detection system will remain active for the evaluation period of a few years, after which the researched data will be evaluated. Wyoming DOT will continue operation of this system as long as it proves effective.

What are the results?

In addition to potentially reducing fatalities and accidents, the project will provide evaluation data that will assist transportation decision makers and implementers nationwide. This project is made possible by support from:

Wyoming Department of Transportation
Western Transportation Institute,
Montana State University
Federal Highway Administration
Idaho Department of Transportation
Montana Department of Transportation
Yellowstone National Park

And Many Others...

For further information, contact: Mr. Patrick McGowen, Research Engineer Western Transportation Institute Montana State University-Bozeman P.O. Box 173910 Bozeman, MT 59717 Phone: (406) 994-6303 Fax: (406) 994-1697 patm@coe.montana.edu The U.S. Highway 14A Dynamic Warning Variable Message Sign (VMS)



On the Westbound (downhill) Iane of U.S. 14 Alt. Approximately 20 miles East of Lovell, WY



The Western Transportation Institute (WTI) and the Wyoming Department of Transportation, have teamed together to develop a Dynamic Warning Sign that will give a warning based on vehicle characteristics collected by sensors in the roadway.

This project is part of the Greater Yellowstone Rural Intelligent Transportation System (GYRITS) Research Project. Highway 14A represents an important transportation link for Lovell, Wyoming. It serves the recreational and resource needs of a growing number of individual seeking to enjoy the Greater Yellowstone area.

The Dynamic Warning VMS is designed to:

- Give credible and accurate *"real time*" information.
- Advise unfamiliar motorists of alignment, speed conditions, and weather.



"The highway undergoes 10% grades and drops 3,600 feet, has been irreverently dubbed the "Oh My God Highway" by some and "The Devil's Slide" by others." Source:

www.nwc.cc.wy.us/information/maps/area/ 14a/storyone14a.htm



Three fatal accidents occurred in the immediate vicinity of the site from 1994 through 1999. All three accidents involved rolled-over vehicles, suggesting the dangerous curves were a potential cause.

The Dynamic Warning VMS on U.S. Highway 14A analyzes a vehicle's speed in comparison with its size. If the vehicle is going too fast, the sign will give the warning "curves ahead" and "slow down." The warnings provided on the variable message signs will alert travelers to potentially hazardous conditions. Ideally, drivers will reduce their speeds in response to these advisories of hazardous conditions.

Motorist surveys and speed studies conducted before and after the installation of the Dynamic Warning Sign will be used to evaluate the effectiveness of the signs.

This section of U.S. Highway is riddled with sharp corners and steep grades, both of which can be challenging to maneuver with a trailer, heavy truck, or recreation vehicle.

