



Texas Department of Transportation

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March 10, 2003

Mr. Ernest Huckaby
Federal Highway Administration
Office of Transportation Operations
Room 3408
400 Seventh Street., S.W.
Washington, D.C. 20590

Dear Mr. Huckaby:

The Texas Department of Transportation would like to request permission from the Federal Highway Administration to experiment with a non-standard speed limit sign as part of the evaluations for TxDOT/TTI research project 0-4271, Applications for Advanced Sign Sheeting Materials.

Description of Traffic Control Device:

The non-standard sign for which we are requesting experimentation is a standard R2-1 speed limit sign with an **extended 3-inch red or yellow retroreflectorized border around the entire sign perimeter** (See Figure 1). The colored border will extend out from the edge of the sign and will not interfere with any component of the sign face itself, including the standard black border. The colored border will be fabricated with ASTM Type VII, VIII, or IX Sheeting.

Purpose:

The purpose for the colored border is to provide improved conspicuity of the R2-1 sign at locations where the posted speed limit differs from the upstream posted speed (e.g. approaches to or departures from incorporated areas). It is hypothesized that the improved sign conspicuity provided by the colored border will cause improved compliance with the posted speed limit because a greater percentage of drivers will see the sign. The border color (red or yellow) will be selected on the basis of a focus group that will occur in central Texas in early March 2003.

Field Evaluation:

It is requested that permission be granted to experiment with the nonstandard R2-1 sign at a maximum of five locations on TxDOT highways. The field evaluations will include the daytime and nighttime effect of this non-standard sign on driver speeds and deceleration characteristics vs. the standard R21 sign.

A typical field evaluation at a given site would be as follows:

1. Collect speed data near the sign in the "before" period (existing standard R2-1 sign) using automated measurement devices,
 - a. Spot speeds would be collected at a minimum of four locations upstream and downstream of the Speed Limit sign.
 - b. Spot speed data will be collected for minimum of 48 hours at each site.
 - c. Drivers will not be interviewed or interfered with in any way.
2. Implement the extended 3-inch retroreflectorized colored border to the existing sign.
3. Allow for 2-week "acclimation" period to allow novelty effects of the new sign to wear off.
4. Collect data in the "after" period in the same manner as before.
5. Remove the border to restore the sign to standard condition.

The colored R2-1 border will be in place at a given location for no more than two months and will be removed shortly after the conclusion of data collection. TxDOT and TTI staffs see no reason to believe that the R2-1 colored border extension will have adverse effects on traffic operations or safety while in place. However, the experiment will be terminated if it is determined that significant safety concerns are directly or indirectly attributable to the colored border used in this experiment.

Thank you for your consideration. If you have any questions or need additional information, please call me at (512) 416-3120.

Sincerely,



Greg Brinkmeyer, P.E.
Engineer of Policy and Standards
Traffic Operations Division

- cc. Carlos Ibarra, P.E., ATL
Kirk Barnes, P.E., BRY
Gene Hawkins, Ph.D., P.E-Texas Transportation Institute
Tim Gates, Texas Transportation Institute



Figure 1. Example of Experimental Sign (note border may be red or yellow)