

11/04/02

Mr. Ernie Huckaby
Federal Highway Administration
c/o Mr. Fred Ranck
FHWA Midwest Resource Center

Mr. Huckaby:

This letter is an official request to the Federal Highway Administration for experimentation with a non-standard stop sign as part of the evaluations for TTI/TxDOT research project 0-4271, Applications for Advanced Sign Sheeting Materials. The non-standard stop sign is a 30-inch standard-red stop sign **utilizing continuously flashing LEDs placed within the border at the corners of the sign** (Figure 1). The sheeting material on the sign face is ASTM Type IX retroreflective sheeting. The purpose for the flashing LEDs is to provide improved conspicuity of the sign, especially at night.

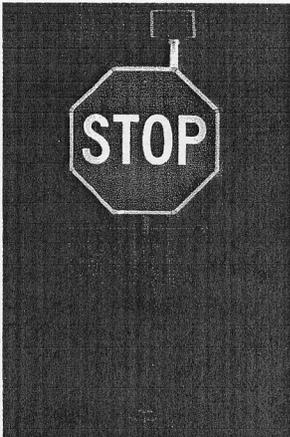


Figure 1. Continuously Flashing LED Stop Sign

TTI possesses one sign for experimentation purposes. This sign is considerably more conspicuous at night than standard red high intensity stop signs. However, the effect of this sign on traffic operations is unknown. Therefore, TTI research staff believes that a field evaluation investigating the effect of this sign on driver behavior vs. standard red high intensity signs is appropriate and should be included in research activities for project 0-4271.

TTI research staff proposes to evaluate the daytime, twilight and nighttime effect of this sign on driver behavior at no more than four field locations. The installations will occur on intersections with TxDOT roadways in both rural and suburban settings in the Waco and Bryan TxDOT Districts and the City of College Station, Texas. The field evaluations would occur during November 2002 through January 2003. Necessary approval has been granted to TTI from Larry

Colclasure, P.E., Waco TxDOT District Traffic Engineer; Kirk Barnes, P.E., Bryan TxDOT District Traffic Engineer; and Dale Picha, P.E., City of College Station Traffic Engineer to experiment with the aforementioned signs on roadways in their respective jurisdictions.

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

1. Covertly collect traffic operations data in the “before” period with the existing MUTCD compliant standard stop sign in place.
 - a. Traffic operations data that will be collected includes: speed profiles of passenger vehicles on approach to the stop sign (measured manually utilizing LIDAR technology) and compliance with the stop sign on the approach in question (measured manually).
 - b. Human data collectors will be placed in inconspicuous locations outside of the roadway so that their safety will not be compromised.
 - c. Drivers will not be interviewed or interfered with in any way.
2. Replace the existing standard-red high intensity stop sign with the flashing LED stop sign shown in Figure 1.
3. Allow for 3-week “warm up” period to allow novelty effects of the new sign to wear off.
4. Collect traffic operations data in the “after” period in the same manner as before.
5. Replace flashing LED stop sign with MUTCD compliant stop sign.

The flashing LED stop sign will be in place at a given location for no more than one month and will be replaced by an MUTCD compliant standard-red high intensity stop sign at the conclusion of data collection. TTI staff sees no reason to believe that this sign will have adverse effects on traffic operations or safety while in place. However, the experiment be terminated if it is determined that significant safety concerns are directly or indirectly attributable to the flashing LED stop sign used in this experiment.

Thank you for your consideration. Please contact me with any questions.

Sincerely,

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cc. Larry Colclasure, P.E.
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