

**Missouri
Department
of Transportation**



Henry Hungerbeeler, Director

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October 3, 2001

Ms. Shelley J. Row, P.E.
Director, Office of Transportation Operations
U.S. Department of Transportation
Federal Highway Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

Dear Ms. Row:

Attached is a formal request to test and evaluate countdown timer displays for pedestrian signals. Our District 5 office will be performing the test and evaluation. The pedestrian countdown signal display provides additional information about the signal's operation. We would like the opportunity to do a formal test to determine if there is a positive impact for pedestrians.

If additional information is needed, please feel free to contact me.

Sincerely,

Mike Curtit, P.E.

Technical Support Engineer

Request to Conduct and Experiment
Manual on Uniform Traffic Control Devices (MUTCD)
Pedestrian Countdown Timers for Crosswalk Signals

In accordance with the MUTCD Section I A.6 - Manual Changes, Interpretations, and Authority to Experiment, we are formally requesting permission to test and evaluate pedestrian countdown timers for crosswalk signals.

- (a) **A statement indicating the nature of the problem:** In a continuing effort to encourage pedestrian travel as part of our metropolitan transportation system, we are installing more pedestrian crosswalk signals. With this effort, we have received a greater number of concerns expressed by travelers on the operations of pedestrian signals.

The intent of pedestrian signals (Walk, Flashing Don't Walk, and Don't Walk) is not always completely understood by the pedestrian traveler. Confusion is common among pedestrians as to the meaning of these indications. They tend to associate the "Walk" indication with a vehicular green indication and the "Flashing Don't Walk" indication with a vehicular yellow indication. This results in a pedestrian turning back once the walk time expires or hurrying across the intersection not realizing that the flashing don't walk provides them with adequate time to complete their crossing. We have developed a small static sign placed near pedestrian push buttons that tries to explain pedestrian signal operation; however, we still receive concerns from the pedestrian traveler.

Their desire is for our department to increase the walk time. Increasing walk time will only increase the overall delays for all travelers using these intersections. The practice of establishing the appropriate clearance interval based on local conditions with a minimum walk interval balances the overall delays in the most efficient manner.

- (b) **A description of the proposed change:** We are proposing the installation of countdown timer display indications as part of the pedestrian crosswalk at the intersections of MO 763 and Rollins Street and MO 740 and Forum Blvd. in Columbia, Missouri (see attached map). We have received several concerns from pedestrians in this general area.
- (c) **Any illustrations about the experimental device:** Attached is a Federal Highway Administration informational sheet about ITS Applications for Pedestrians along with general informational sheets from one supplier of this device.
- (d) **Any supporting data about the experimental device:** In our investigation to determine an answer to these concerns, we have found out that several sites across our country are using these devices.
- (e) **A detail evaluation plan for the experimental device:** We will develop and conduct a before conditions and after conditions surveys about the experimental device. The before conditions survey will measure current pedestrian understanding of our pedestrian signals and static signs. The after conditions survey will measure the effectiveness of adding the countdown timer display. Questions will be general in nature with anticipated simple responses from waiting pedestrian traffic.

The before conditions will be conducted within a month after notifications that experimental devices can be evaluated. MODOT staff members will be stationed at the crossing to interview those using the crossing. The after conditions will be measured in a similar manner six months after the devices have been installed. Monthly observations will be made to ensure proper operations and all inquiries regarding

the operations of these devices will be documented. We would anticipate some interest from other sites around this area, since this area is adjacent to a major shipping area and pedestrian traffic is moderate. All inquiries will be documented regarding these devices and their associated operations. Below is a proposed timeframe for the submittal:

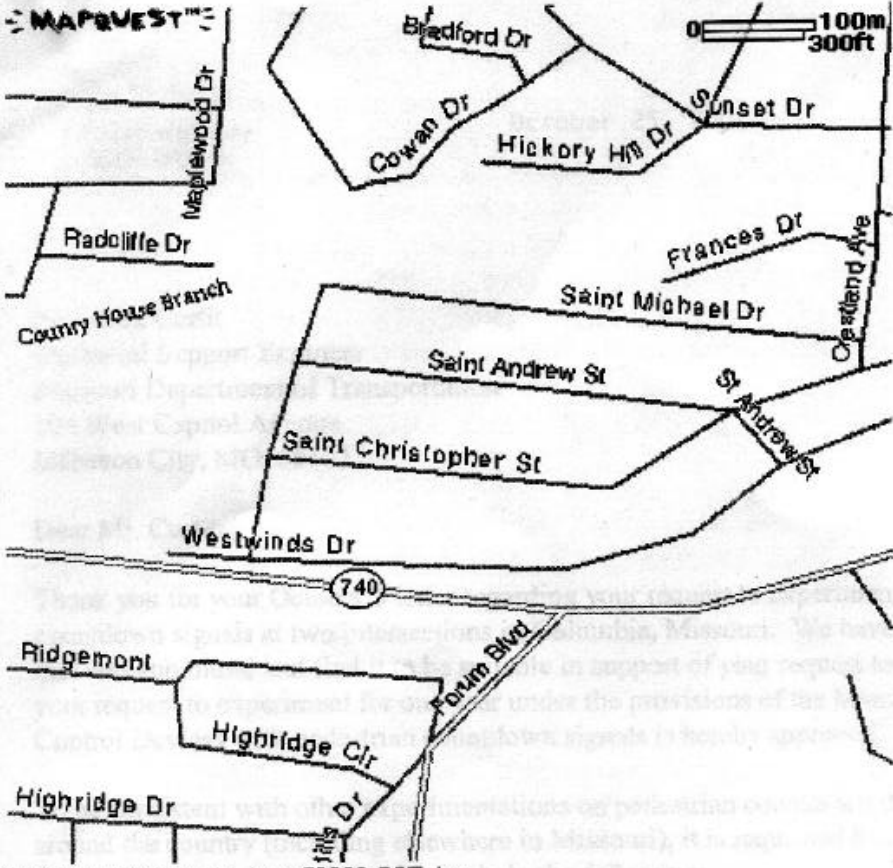
- (a) - Notifications to begin evaluation
 - (b) - Before Conditions Survey (within 1 month)
 - (c) - Six months Progress Report
 - (d) - After Conditions Survey (6 months after installation)
 - (e) - Final Report - Documentation of Evaluation (2 months after (d))
- (f) **An agreement to restore the experiment site:** The Missouri Department of Transportation agrees to restore the pedestrian traffic signal at MO 763 and Rollins Street and MO 740 and Forum Blvd. located in Columbia, Missouri to their prior condition; if the experimental pedestrian countdown timer display device does not add a noticeable benefit to pedestrian travelers.
- (g) **Agreement to provide semiannual progress report:** The Missouri Department of Transportation (MODOT) agrees to the development of two reports during the proposed evaluation process - First report at six months that will include before conditions survey, general monthly observations after installations and public comment received on this installation. Second and final report at nine months will include information from the first report along with the continuation of monthly observations, additional public comments and the results of the after conditions survey. The final report will also include recommendations to either remove, continue evaluation period or to approve devices for other regional and statewide sites.

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