



U.S. Department
of Transportation
**Federal Highway
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

November 17, 2009

In Reply Refer To: HOTO-1

Dianne Patterson, Ph.D.
4950 North Via Entrada
Tucson, Az 85718

Dear Ms. Patterson:

Thank you for your October 15 e-mail requesting an Official Interpretation of the Manual on Uniform Traffic Control Devices (MUTCD) regarding "violation line" pavement markings used at some intersections in Tucson, Arizona, to indicate the point on the roadway beyond which a red light violation has occurred for photo enforcement purposes.

Your message and the accompanying intersection diagram indicates that a transverse solid 4-inch wide white line indicating the prolongation of the curb line of the cross street has been installed on some intersection approaches in Tucson to mark the point of violation for photo red light enforcement. The line is accompanied by a pavement word marking of "WAIT." You asked for an official interpretation on whether these pavement markings comply with the MUTCD, in particular regard to their use on approaches that also have a stop line and crosswalk.

The MUTCD does not contain any provisions for the use of transverse lines to indicate the legal limits of an intersection for red light violation purposes. The reason is that, under the provisions of the Uniform Vehicle Code (UVC), which is the basis of the motor vehicle laws of most States, the stop line, or crosswalk if there is no stop line, defines the point beyond which a red light violation has occurred.

Section 3A.02 of the MUTCD states: "Each standard marking shall be used only to convey the meaning prescribed for that marking in this Manual." Because there is no meaning of "violation line" assigned to a transverse line, a "violation line" marking does not comply with the MUTCD.

Arizona law states that a driver facing a red light may not enter the intersection, which is defined as the prolongation of the lateral curb lines where the two streets meet. The transverse violation line and "WAIT" message are being used to identify the actual line a driver cannot cross without being in the intersection and thus in violation of the red signal under Arizona law. However, it is unlikely that drivers from other States who encounter these markings in Arizona would understand their meaning or intent. The word marking "WAIT," although technically not disallowed by the MUTCD, is of particular concern because it is visible to drivers at all times



even though it does not apply at all times. When the signal is displaying circular green or green arrow indications, the "WAIT" message could be confusing and could provoke unfamiliar drivers to stop unexpectedly at the violation line.

We do understand there may be a need for some markings or other devices to indicate the edge of the legally-defined intersection for red light enforcement purposes at some locations. However, jurisdictions wishing to use such non-compliant markings or devices are required by Section 1A.10 of the MUTCD to request and receive approval from the Federal Highway Administration (FHWA) for experimentation. Such experimentation would necessarily include data collection and study to evaluate road users' understanding of the markings, the effectiveness of such markings in reducing violations, and whether such markings create other safety issues.

Thank you for your interest in traffic operations and safety. Please note that we have assigned this matter the following official interpretation number and title: "3-232(I)—Markings for Red Light Violations." Please refer to this number in any future correspondence.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Paul Pisano". The signature is fluid and cursive, with a large initial "P" and a long, sweeping underline.

Paul Pisano
Acting Director, Office of Transportation
Operations