Mr. Jim Baron ATSSA



February 3, 2005

400 Seventh St., S.W. Washington, D.C. 20590

Refer to: HOTO-1

Ms. Gabriela C. Vidal Manager Safety and Traffic Engineering Branch Colorado Department of Transportation 4201 East Arkansas Avenue Denver, CO 80222

Dear Ms. Vidal:

Thank you for your December 2, 2004, letter requesting permission to experiment with a new symbol warning sign for heavy weaving movements.

Your request has been reviewed and the following comments are noted:

- 1 Your proposal for experimentation should include a human factors laboratory study to evaluate motorist recognition and understanding of the symbol before it is tested in the field under real-world conditions. Please include this in the scope of work for item G. Please keep in mind that a threshold of 50 percent recognition and understanding is needed before testing a candidate design in the field under live traffic.
- 2. MUTCD Section 1A.10, Items B and D, recommend that your proposal should include supporting data that describes the details of how the proposed design was selected and why you believe it would be an improvement.
- 3. In your proposal, you indicate that the proposed symbol has not been tried. We recommend that the symbol be evaluated in a controlled setting. An example of one of the evaluation questions would be whether or not the "straight ahead" arrow shafts included in the symbol design are misunderstood. It might be clearer to the motorist if only the 2 arrows that cross in the center of the symbol were used. Another element of the controlled setting evaluation should compare potential approach speeds with the point at which the proposed symbol is seen and recognized to help determine motorist reaction time.
- 4. Semiannual progress reports should be included as part of your reporting requirements.
- 5. Include the implementation date and completion date for this proposed experimentation.



Please revise your experimentation request to address the comments above and then resubmit the information to us. Your request to experiment has been assigned the following official ruling number and title: 2-556(E)-Warning Symbol for Heavy Weaving Movements. Please refer to this number in future correspondence.

If you have questions or wish additional information, please feel free to call Mr. Fred Ranck, Safety Engineer, Federal Highway Administration's Resource Center in Olympia Fields. Telephone number is 708-283-3545.

Sincerely yours,

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Regina S. McElroy Director, Office of Transportation Operations

cc: Mr. Jim Baron, ATSSA