



National Committee on Uniform Traffic Control Devices

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ATTACHMENT NO. 5

January 6, 2017

Docket Management Facility,
U.S. Department of Transportation,
1200 New Jersey Avenue SE., W12-140,
Washington, DC 20590

RE: FHWA Docket No. FHWA-2016-0036

Good day:

In response to the Request for Information published in the Federal Register on December 13, 2016, the National Committee on Uniform Traffic Control Devices (NCUTCD) submits the following.

1. The Request for Information states that “The FHWA based the termination of IA-5 on available relevant information and research.” and also sought information on any additional research which the FHWA may not have been aware of at the time it terminated Interim Approval 5. The National Committee refers FHWA to the following more recent research studies and papers.

Philip M. Garvey, M. Jennifer Klena, Wei-Yin Eie, Donald T. Meeker, and Martin T. Pietrucha. (2016). “Legibility of the Clearview Typeface and FHWA Standard Alphabets on Negative- and Positive-Contrast Signs”. Transportation Research Record: Journal of the Transportation Research Board, (2555), 28-36.

Jonathan Dobres, Susan T. Chrysler, Benjamin Wolfe, Nadine Chahine, and Bryan Reimer. “Signs of the Times: An Empirical Assessment of the Legibility of Highway Gothic and Clearview Signage Fonts”, TRB Paper Number 17-04920, Compendium of Papers, TRB 2017 Annual Meeting.

The research by Garvey, et. al. presented at the 2016 TRB annual meeting and published in the Transportation Research Record examined both positive and negative contrast versions of mixed case Clearview compared to their FHWA Standard Alphabet counterparts in all upper case and mixed case. The study measured legibility distance and found that Clearview fonts were read at greater distances both day and night.

The research by Dobres et. al. presented at the 2017 TRB annual meeting and to be published in the Transportation Research Record examined Clearview and FHWA Standard Alphabets in a laboratory study using a lexical decision task representing the amount of time needed to decide whether a string of letters was a word or not accurately under conditions of glance-like reading. Clearview attained lower reading

time thresholds (superior legibility) compared to the standard alphabets across all conditions.

2. The National Committee and others in the field of transportation research (such as TRB session 766 at 2017 annual meeting) have observed that occasionally, multiple research studies seeking to answer the same question yield contradictory findings. Opposing conclusions may result from differing choices in: 1) research methodology; 2) experimental design; and 3) measures of effectiveness (MOEs), as well as interpretation of results. The quality of individual research projects may vary in other ways, some being more robust than others. Each of these factors can have profound effects on the findings and conclusions of transportation experimental research and lead to divergent conclusions, and in the case of ClearView the design of the font has changed over the course of its lifetime.

When this happens, decision-makers and policy-makers often have a difficult time evaluating the conflicting results, and subsequent establishment of agency policy becomes more difficult. In this situation it is highly important that the decision-makers and policy-makers have a strong understanding of differences in: research methodology; experimental design; measures of effectiveness; and interpretation of results, and why some research studies are stronger and more robust and do a better job of supporting conclusions than other studies. A good understanding of the strengths and weaknesses of each research project is needed for decision-makers to make good decisions.

The National Committee believes that the body of research on Clearview font demonstrates a performance equal to, and in some cases, better than Highway E-Modified font. To resolve differences in the interpretation of the research findings, the National Committee suggests that the Federal Highway Administration: 1) sponsor dialogue and debate among traffic control device human factors researchers on this subject; and / or 2) engage an independent third party review of Clearview research.

3. In the interest of mutual cooperation in the development of the Manual on Uniform Traffic Control Devices (MUTCD), the NCUTCD would like to comment on the Interim Approval (IA) process as it pertains to Clearview font as well as future IA actions. The NCUTCD believes the Federal Highway Administration (FHWA) has a valid process for approving IAs. The MUTCD states, "Interim approval allows interim use, pending official rulemaking....," and "The issuance by FHWA of an interim approval will typically result in the traffic control device or application being placed into the next scheduled rulemaking process for revisions to this Manual." Thus, IAs are viewed by the practitioner community as an interim step until a device or application is adopted into the next revision, or the next edition, of the MUTCD.

However, because the Clearview font IA was the first IA to be terminated, it highlights issues that were not evident in the past. The impact on agencies and practitioners that had adopted use of Clearview font was substantial, even with the provisions to allow existing signs to remain in place for their useful service lives. The termination requires changes in agency policies, retraining of sign shop personnel, and other significant costs. Because of these impacts on agencies, the NCUTCD believes that future terminations of Interim Approvals should involve a more inclusive process. The NCUTCD requests that notification be provided to agencies and practitioners if an IA is being considered for termination.

4. In any cases where a safety issue is identified with a device or application under Interim Approval, the National Committee would support immediate termination of the Interim Approval.

In conclusion, the National Committee supports the continued optional use of Clearview font in lieu of E-Modified font on positive contrast guide sign applications pending further discussion.

Lee E. Billingsley, P.E.

Chair

National Committee on Uniform Traffic Control Devices