

Federal Highway Administration
400 Seventh Street, SW
Washington, DC 20590

Refer to: HOTO-1

Mr. James S. Harker
City Engineer
Public Works Department
City of Cheyenne
2101 O'Neil Avenue, Room 210
Cheyenne, WY 82001

Dear Mr. Harker:

Thank you for your October 19 letter to the Federal Highway Administration (FHWA). We apologize for the delay in responding. Your letter was delayed in reaching our office because our office title and mailing code has been changed to the Office of Transportation Operations (HOTO-1).

In your letter, you requested permission to experiment with a single lens traffic signal. We are denying your request to experiment for the following reasons:

1. The single lens traffic signal poses a problem for color-weak drivers. Color-blind drivers have become accustomed to understanding traffic signals based on their position in the standard three-section signal. While we recognize that this signal uses different shapes for the different colors, we are not convinced that color-weak drivers will be able to distinguish between the shapes at a great enough distance to make the appropriate and safe driving action.
2. Before considering an experiment with a single lens traffic signal, the FHWA would need to review the results of human factors studies associated with the device, including, but not limited to, visibility, target value, comprehension, appropriateness of response, and effects on aging drivers as well as color-weak drivers. We are not aware of any human factors research that has been completed on this device and will not approve any experiment on such a device until human factors research data shows the device would not pose any safety concerns.

In addition, we understand you have already installed a single lens traffic signal. Your single lens traffic signal is not in conformance with the Manual on Uniform Traffic Control Devices (MUTCD). The MUTCD is adopted by reference in accordance with Title 23, United States Code, Section 109(d) and Title 23, Code of Federal Regulations, Part 655.603, and is approved as the national standard for all roads open to public travel. We advise you to remove this non-conforming traffic signal and replace it with a traffic signal that conforms to the MUTCD.

For reference purposes, we have assigned your request the following official experimentation number and title "IV-194(E)–Unilight Traffic Signal."

In the future, please first contact Mr. Larry Swanson, Traffic and Safety Engineer, FHWA Wyoming Division Office, 1916 Evans Ave, Cheyenne, Wyoming 82001. His telephone number is 307-772-2004, Ext. 47. Mr. Swanson will work with you to develop a future experimental submission, or to answer other FHWA-related questions. The FHWA division offices provide on-site assistance to the State and local jurisdictions in following FHWA procedures. If Mr. Swanson is not able to assist you, please feel free to contact Mrs. Louisa M. Ward at 202-366-4372 on any traffic signal-related issue.

Sincerely yours,

Shelley J. Row, P.E.
Director, Office of Transportation
Operations