



U.S. Department
of Transportation


Federal Highway
Administration

Memorandum

SENT VIA ELECTRONIC MAIL

Subject: **INFORMATION:** Promoting and
Implementing the Updated Proven Safety
Countermeasures

Date: October 27, 2021

From: Michael S. Griffith 
Director, Office of Safety Technologies

In Reply Refer To:
HSST

To: Division Administrators
Director of Field Services
Federal Lands Highway Division Directors
Safety Field

Thirteen years ago, FHWA launched the Proven Safety Countermeasures initiative (PSCi) as a collection of countermeasures and strategies effective in reducing highway fatalities and serious injuries on our nation's highways. The US Department of Transportation and FHWA are committed to enhancing the safety and performance of our highways by accelerating the development and deployment of promising technologies and practices.

FHWA's Office of Safety has updated the PSCi for the fourth time to include nine new Proven Safety Countermeasures (PSCs). Through this update and the existing countermeasures, we continue to reinforce the need to enhance safety for all road users. Every highway project is an opportunity to make it safer for motorists, pedestrians, bicyclists, and all other users.

The PSCs align with the Safe System Approach which recognizes that, while human beings make mistakes and crashes are inevitable, the consequences of those mistakes should not result in death or serious injury. With these principles in mind, the PSCs incorporate elements that separate users in space and time, manage speeds, mass, and impact force angles, increase attentiveness, and reduce complexity of the design and operation of our transportation system. Through the PSCi, we have an opportunity to advance Safe System infrastructure countermeasures and strategies that anticipate human error and accommodate human injury tolerances.

This fourth iteration of proven safety countermeasures includes the following new PSCs:

1. Rectangular Rapid Flashing Beacon (RRFB)
2. Crosswalk Visibility Enhancements
3. Bicycle Lanes

4. Lighting (Intersections and Segments)
5. Pavement Friction Management (High Friction Surface Treatments and Continuous Pavement Friction Measurement)
6. Wider Edge Lines
7. Variable Speed Limits
8. Speed Safety Cameras
9. Appropriate Speed Limits for All Road Users

Like previous countermeasures added to the list, these are countermeasures that are proven to be effective through sound research and are currently at the early stages of implementation. FHWA is providing leadership of these countermeasures to give them greater visibility given their limited use and is requesting State and local highway agencies to consider them where appropriate. With the newest additions, there are now 28 different PSCs transportation agencies can advance in their jurisdiction, with the confidence that their implementation will reduce fatalities and serious injuries as they align with the Safe System Approach. The cumulative list is diverse and broad, and each PSC addresses at least one safety focus area – speed management, intersections, roadway departures, or pedestrians/bicyclists – while others are crosscutting strategies that address multiple safety focus areas. There are countermeasures that can be implemented to improve multimodal safety and accessibility to ensure equity and can be applied to a variety of contexts including rural roads and urban streets. Please note there are many other effective countermeasures that also should be considered and information about the effectiveness of the full range of different safety countermeasures can be found at the Crash Modification Factors clearinghouse (cmfclearinghouse.org).

I encourage you to visit the Office of Safety's Proven Safety Countermeasure initiative website (<https://safety.fhwa.dot.gov/provencountermeasures/>) which has been updated with enhanced functionality and features to assist practitioners with identifying applicable countermeasures that meet their needs. The handouts for the existing PSCs have also been updated to reflect the latest research, applications, and considerations for implementation. We will also provide technical assistance and training to your Offices and State and local highway agencies regarding these PSCs. If you have questions regarding the Proven Safety Countermeasures initiative, please contact Phillip Bobitz, Office of Safety Technologies, at phillip.bobitz@dot.gov or (717) 221-4574.