



U.S. Department of Transportation
Federal Highway Administration



Local Road Safety Plans Webinar 3

New Jersey

October 19, 2023



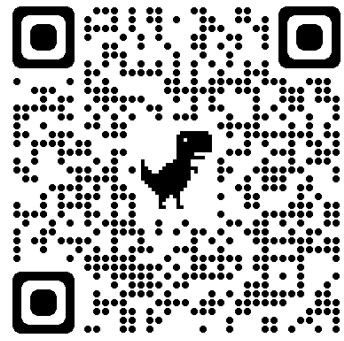
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LOCAL ROAD SAFETY PLANS:

Your Map to Safer Roadways

No matter what your resources, a Local Road Safety Plan will guide you to data-driven solutions and safer roads.

https://safety.fhwa.dot.gov/provencountermeasures/local_road/



Packed Agenda

- Proven Safety Countermeasures - Derek Troyer, FHWA
- New Jersey Safety Resource Center - Amy Kaminski, FHWA
- Complete Streets and Local Safety Plans – Peter Bilton, NJTPA
- Outreach and Innovative Engagement – Melissa Hayes, NJTPA
- Funding programs
 - NJDOT - Deven Patel, NJDOT
 - HSIP - Sascha Frimpong, NJTPA
 - USDOT Discretionary Grants – Amy Kaminski, FHWA
- Wrap up - Derek Troyer, FHWA





OFFICE OF SAFETY
Proven Safety
Countermeasures



Safety Benefits:

Left-Turn Lanes
28-48%
reduction in total crashes.¹

**Positive Offset
Left-Turn Lanes**
36%
reduction in fatal
and injury crashes.²

Right-Turn Lanes
14-26%
reduction in total crashes.¹



Left- and right-turn lanes on a two-lane road. Source: City of Greeley, CO

For more information on this and other FHWA Proven Safety Countermeasures, please visit <https://safety.fhwa.dot.gov/provencountermeasures/> and <https://www.fhwa.dot.gov/publications/research/safety/02103/02103techbrief.pdf>.

FHWA-SA-21-041

Dedicated Left- and Right-Turn Lanes at Intersections

Auxiliary turn lanes—either for left turns or right turns—provide physical separation between turning traffic that is slowing or stopped and adjacent through traffic at approaches to intersections. Turn lanes can be designed to provide for deceleration prior to a turn, as well as for storage of vehicles that are stopped and waiting for the opportunity to complete a turn.

While turn lanes provide measurable safety and operational benefits at many types of intersections, they are particularly helpful at two-way stop-controlled intersections. Crashes occurring at these intersections are often related to turning maneuvers. Since the major route traffic is free flowing and typically travels at higher speeds, crashes that do occur are often severe. The main crash types include collisions of vehicles turning left across opposing through traffic and rear-end collisions of vehicles turning left or right with other vehicles following closely behind. Turn lanes reduce the potential for these types of crashes.

Installing left-turn lanes and/or right-turn lanes should be considered for the major road approaches for improving safety at both three- and four-leg intersections with stop control on the minor road, where significant turning volumes exist, or where there is a history of turn-related crashes. Pedestrian and bicyclist safety and convenience should also be considered when adding turn lanes at an intersection. Specifically, offset left- and right-turn

lanes will lengthen crossing distances for pedestrians.

Offset Turn Lanes

Providing offset of left- and right-turn lanes to increase visibility can provide added safety benefits, and is preferable in many situations, particularly at locations with higher speeds, or where free-flow or permissive movements are possible.

At turn lanes with zero or negative offset, turning vehicles can block sightlines. For left-turn lanes, this usually involves opposing left-turning vehicles occupying the turn lanes at the same time. For right-turn lanes, this typically involves right-turning vehicles from the major road and vehicles entering the intersection from the minor road. In both scenarios, adding positive offset to turn lanes enhances the sight distance to approaching vehicles that conflict with the turning movement. Offset turn lanes should be considered when there is a high frequency of these types of conflicts in order to reduce the likelihood of a severe crash.

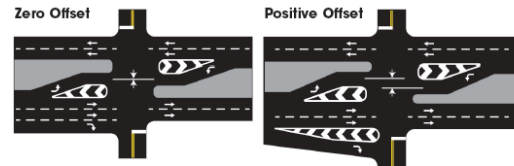


Illustration comparing zero offset to positive offset of left- and right-turn lanes. Source: FHWA

¹ Harwood et al. Safety Effectiveness of Intersection Left- and Right-Turn Lanes. FHWA-HRD-02-089, (2002).

² Pasoud et al. Safety Evaluation of Offset Improvements for Left-Turn Lanes. FHWA-HRT-09-035, (2009).



Proven Safety Countermeasures

Fact Sheet Updates

- 9 New PSCs
- Updates to existing PSCs
- Used most recent research

<https://safety.fhwa.dot.gov/provencountermeasures>

Source: FHWA



Proven Safety Countermeasures

FHWA's Proven Safety Countermeasures initiative (PSC) is a collection of countermeasures and strategies effective in reducing roadway fatalities and serious injuries on our Nation's highways. Transportation agencies are strongly encouraged to consider widespread implementation of PSCs to accelerate the achievement of local, State, and National safety goals.

PROVEN SAFETY COUNTERMEASURES (PSC) TOOLS **NEW**

FILTER TOOL »
Filter countermeasures by focus area, crash type, problem identified, and area type.

SEARCH PSCs

SPEED MANAGEMENT



Speed Safety Cameras



Variable Speed Limits



Appropriate Speed Limits for All Road Users

ROADWAY DEPARTURE



Wider Edge Lines



Enhanced Delineation for Horizontal Curves



Longitudinal Rumble Strips and Stripes



Safety Edge



Roadside Design Improvements at Curves



Median Barriers

Proven Safety Countermeasures Filter Tool

All 28 PSCs are listed at the bottom of the page in alphabetical order. Answer one or more of the following questions to obtain a tailored listing of potential PSCs for the location of interest. Users may select multiple answers for each question. After checking the desired listing of potential PSCs for the location of interest, users may select multiple answers for each question. After checking the desired listing of potential PSCs for the location of interest, users may select multiple answers for each question. After checking the desired listing of potential PSCs for the location of interest, users may select multiple answers for each question. Click "Clear Form" to remove all filters and return to the default display of all 28 PSCs. Select a countermeasure name to learn more including a description, safety effectiveness, context, application, and considerations for implementation.

<p>What type of area is the roadway located?</p> <input type="checkbox"/> Urban <input type="checkbox"/> Suburban <input type="checkbox"/> Rural	<p>What is the functional classification of the roadway?</p> <input type="checkbox"/> Freeway <input type="checkbox"/> Highway <input type="checkbox"/> Arterial <input type="checkbox"/> Collector <input type="checkbox"/> Local
<p>Which focus area is being addressed?</p> <input type="checkbox"/> Roadway Departure <input type="checkbox"/> Intersection <input type="checkbox"/> Pedestrian <input type="checkbox"/> Bicyclist <input type="checkbox"/> Speed Management	<p>What is vehicular volume in Average Annual Daily Traffic (AADT) along the major roadway?</p> <input type="checkbox"/> Low (<2,000) <input type="checkbox"/> Medium (2,000-15,000) <input type="checkbox"/> High (>15,000)
<p>What problem is being addressed?</p> <input type="checkbox"/> Inadequate Visibility, Conspicuity, or Sight Distance <input type="checkbox"/> Excessive Vehicular Conflicts <input type="checkbox"/> Congestion <input type="checkbox"/> Excessive Speeds <input type="checkbox"/> Non-Compliance (yielding right-of-way) <input type="checkbox"/> No Separation of Users <input type="checkbox"/> Driver Inattention (distracted/drowsy) <input type="checkbox"/> Driver Impairment (alcohol/drugs)	<p>What specific crash types are being targeted at the location?</p> <input type="checkbox"/> Angle <input type="checkbox"/> Left-Turn <input type="checkbox"/> Right-Turn <input type="checkbox"/> Rear End <input type="checkbox"/> Pedestrian/Bicyclist <input type="checkbox"/> Head On <input type="checkbox"/> Run-Off-Road/Single-Vehicle <input type="checkbox"/> Sideswipe, same direction <input type="checkbox"/> Sideswipe, opposite direction <input type="checkbox"/> Wet <input type="checkbox"/> Nighttime <input type="checkbox"/> Speed-related <input type="checkbox"/> Rollover <input type="checkbox"/> Fixed-Object

PROVEN SAFETY COUNTERMEASURES (PSC) TOOLS **NEW**

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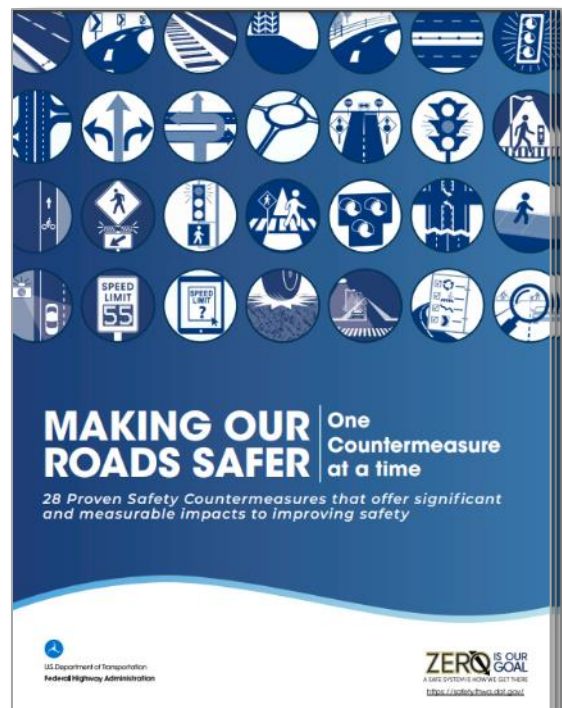
SEARCH PSCs

Website

- New look/branding
- New search and filter tool
- Focus areas:
 - Speed Management
 - Intersections
 - Roadway Departures
 - Ped/Bicyclist
 - Crosscutting

<https://safety.fhwa.dot.gov/provencountermeasures>

Source: FHWA



Other Resources

- Overview Flyer
- PSC Booklet
- Videos
 - PSC Overview
 - Lighting

2021 PSC ROLLOUT NEW

 [RECORDED WEBINAR »](#)
Listen to the webinar highlighting the 2021 updates and additions to the PSC.

 [OVERVIEW FLYER »](#)
Download the 2-page PSC overview flyer.

GUIDANCE MEMOS NEW

Read the Guidance Memoranda on Promoting the Implementation of Proven Safety Countermeasures.
[2021](#) | [2017](#) | [2012](#) | [2008](#)

 [WEBINAR TRANSCRIPT »](#)
Read a transcript of the PSC webinar recording.

 [PROVEN COUNTERMEASURES BOOKLET »](#)
Download a comprehensive booklet on all 28 proven countermeasures.

<https://safety.fhwa.dot.gov/provencountermeasures>

Source: FHWA



Existing PSCs

<https://safety.fhwa.dot.gov/provencountermeasures>



New PSCs



Rectangular Rapid Flashing Beacons (RRFBs)



Lighting (Intersection and Segments)



Crosswalk Visibility Enhancements



Pavement Friction Management (CPFM and HFST)



Wider Edge Lines



Bicycle Lanes



Variable Speed Limits



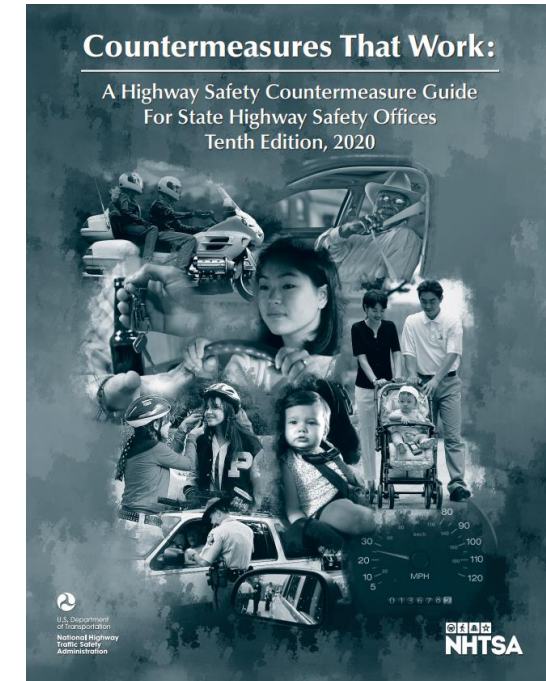
Speed Safety Cameras



Appropriate Speed Limits for All Road Users

NHTSA's Countermeasures that Work

1. Alcohol- and Drug-Impaired Driving;
2. Seat Belts and Child Restraints;
3. Speeding and Speed Management;
4. Distracted Driving;
5. Motorcycle Safety;
6. Young Drivers;
7. Older Drivers;
8. Pedestrian Safety;
9. Bicycle Safety; and
10. Drowsy Driving.



https://www.nhtsa.gov/sites/nhtsa.gov/files/2021-09/Countermeasures-10th_080621_v5_tag.pdf



Publicized Sobriety Checkpoints

Effectiveness: ★ ★ ★ ★ ★

Cost: \$\$\$

Use: Medium

Time: Short

- Authorized in 38 States + DC
- Documented Crash Reduction
 - All Crashes: 10-15%
 - Alcohol-related crashes: 17%
 - Alcohol-related fatal crashes: 9%

Page 1-21,

<https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812202-countermeasures-that-work-8th.pdf>



Short-Term High-Visibility Belt Law Enforcement

Effectiveness: ★ ★ ★ ★ ★	Cost: \$\$\$	Use: Medium [†]	Time: Medium
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[†] Used in many jurisdictions but often only once or twice each year

- Documented Belt Use Increase
 - 16% increase
- Increased use in conjunction with public education/outreach and paid/donated media

Page 2-17, <https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812202-countermeasureshatwork8th.pdf>



LOCAL ROAD SAFETY PLANS:

Your Map to Safer Roadways

Step 1
Identify
Stakeholders

Step 2
Use
Safety Data

Step 3
Choose Proven
Solutions

Step 4
Implement
Solutions

Finish Line

There are many countermeasures proven to save lives on rural roads. It's just a matter of deploying them in the right places. This page has lots of videos and other examples of specific countermeasures to address the most common crash types on local and rural roads. Have a look and discover which ones are best for your community.

SCROLL DOWN FOR MORE VIDEOS

▶ Local Agency Insights: Choose Proven Solutions

LRSP DIY Choose Proven Solutions

Share

LOCAL ROAD SAFETY PLANS:

Your Map to Safer Roadways

CHOOSE PROVEN SOLUTIONS

Watch on YouTube

LOCAL ROAD SAFETY PLANS:
Your Map to Safer Roadways

CHOOSE PROVEN SOLUTIONS

"What solutions have other agencies implemented?"

▶ Roadway Departure Countermeasure Videos

LOW-COST SAFETY IMPROVEMENTS




Tools and Resources

Content will open in a new window

▶ Countermeasures ▶ Training ▶ Helpful Links

<https://safety.fhwa.dot.gov/LRSPDIY/proven-solutions.cfm>



“Do what you can,
with what you have,
where you are.”
– Theodore Roosevelt





U.S. Department of Transportation
Federal Highway Administration



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NJDOT SAFETY RESOURCE CENTER

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GOING LIVE SOON!

Safer roadways start here.

[SAFETY TOPICS](#)[See all](#)[Safer Roads](#)[Safer Users](#)[UPCOMING TRAININGS](#)[See all](#)

There are no upcoming events.



U.S. Department
of Transportation