

*Strategies and Countermeasures for the Intersection Safety Emphasis Area.<sup>1</sup>*

<b>Strategy #1 Improve data systems for identifying specific intersections and intersection types at high probability for serious injury crashes</b>	
<b>Countermeasures and Programs:</b>	
1a	Create a statewide intersection safety and roadway elements database. (Incorporate Model Inventory of Roadway Elements format, create a standardized data structure to support GIS applications, create an app for data collection, develop partnerships between TxDOT, MPOs, and local agencies to populate the database, and develop and implement an intersection identifier system for posting at intersections).

<b>Strategy #2 Consider alternative design strategies for improving intersection safety</b>	
<b>Countermeasures and Programs:</b>	
2a	Construct roundabouts and create an outreach program to educate the public and public officials about roundabout advantages and safety benefits.
2b	Convert signalized intersections to diverging left intersections.
2c	Encourage use of the Intersection Control Evaluation process for use in project development by TxDOT and local agencies—develop case studies, provide training, and conduct outreach.

<b>Strategy #3 Improve pedestrian safety at intersections with high probability of crashes</b>	
<b>Countermeasures and Programs:</b>	
3a	Develop methods to identify and target high pedestrian crash probability locations: Systemic methods (i.e., based on characteristics) and screening for locations with above average crash experience.
3b	At targeted intersections: Prohibit right on red and permissive left turns at high probability locations, install/improve pedestrian signals, pedestrian crosswalks, lighting, and/or high friction surface treatment on intersection approaches, and ensure pedestrian signals, push buttons, crosswalk markings, etc. meet current requirements or upgrade to current requirements, including signal timing.
3c	Install low to medium cost improvements to increase pedestrian safety: Eliminate free flow turn lanes or convert them to angled turn lanes that require stopping/yielding, add turn islands and median islands and curb bulb outs, convert permissive only or protected permissive phasing to protected only (when

<sup>1</sup> All intersection strategies and countermeasures should consider the needs of persons with disabilities.

	pedestrian is present or during active times of day), provide enhanced measures— rectangular rapid flash beacon, pedestrian hybrid beacon, lighting, etc. at uncontrolled high risk locations, and pedestrian islands.
--	--

**Strategy #4 Increase driver awareness of intersections**

<b>Countermeasures and Programs:</b>	
4a	Develop Texas specific resources on the use of specific countermeasures, based on roadway types, system ownerships, rural/urban character, etc. as a guide to practitioners.
4b	Install driver speed feedback signs in advance of intersections.
4c	Implement current Texas Intersection Safety Implementation Plan to prepare for the next iteration of the HSIP.

**Strategy #5 Develop educational campaigns incorporating data analysis to improve intersection safety.**

<b>Countermeasures and Programs:</b>	
5a	Publicize high crash locations and point out the contributing crash factors (e.g., red light running, speeding impaired driving, texting, phone use).
5b	Increase and renew emphasis on safe driving behaviors in driver education.
5c	Create info graphics and other social media friendly information.
5d	Develop and implement a young driver educational campaign relating to signalized intersections.

**Strategy #6 Reduce red light running**

<b>Countermeasures and Programs:</b>	
6a	Use targeted enforcement at high incident locations.
6b	Research, identify, and address the factors contributing to the trend of reduced law enforcement citations for intersection violations.
6c	Educate decision makers and the public on the effectiveness and appropriate use of automated enforcement.
6d	Install automated red light enforcement cameras.
6e	Improve traffic signal timing and interconnect signals to improve efficient traffic flow and encourage a safe travel speed.
6f	Install red light indicator (in most cases, white) lights to inform law enforcement of red signal onset.