



# RESEARCH PROJECT CAPSULE [18-5SA]

October 2018

TECHNOLOGY TRANSFER PROGRAM

## Evaluating Pedestrian Crossings on High Speed Urban Arterials

### JUST THE FACTS:

**Start Date:**  
August 1, 2018

**Duration:**  
15 months

**End Date:**  
October 31, 2019

**Funding:**  
SPR: TT-Fed/TT-Reg

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Sponsored jointly by the Louisiana Department of Transportation and Development and Louisiana State University

### POINTS OF INTEREST:

Problem Addressed / Objective of Research / Methodology Used / Implementation Potential

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### PROBLEM

Arterials function to connect urbanized areas, cities, and industrial centers. Arterials are characterized with limited land access and high mobility. Posted speed limits on arterials generally range between 50 mph – 70 mph. More than half of all pedestrian fatalities occur on urban arterials. A similar trend has been reported for pedestrian injuries. In 2016, 128 pedestrians were killed and 154 were injured in Louisiana traffic crashes.

In order to decrease these numbers and help with a Louisiana Strategic Highway Safety Plan (SHSP) goal to halve traffic fatalities by 2030, there is a need to better understand and identify the risk factors that contribute to pedestrian fatalities and serious injuries on high speed arterials. The Louisiana Department of Transportation and Development (DOTD) has expressed a desire for a system-wide solution of adequate pedestrian crossing facilities on the state's high speed arterials.

### OBJECTIVE

The purpose of this study is to provide a preliminary assessment of Louisiana's roadways in terms of existing pedestrian crossing facilities, identify any associations of pedestrian crashes with the presence or lack of such pedestrian crossing facilities, and provide information on studies needed to be undertaken to provide DOTD with a system-wide solution for pedestrian crossing facilities on its high speed arterials.

### METHODOLOGY

The research team will first conduct a comprehensive literature search for legislation on provision of pedestrian crossing facilities on high-speed urban arterials. The literature review will focus on documenting all the available types of pedestrian crossing facilities, definitions of high speed arterials, policies adopted by other states for pedestrian crossing facilities on high speed arterials, legislation disallowing pedestrians on roadways other than interstate, classification of regions into urban, suburban, or rural, and inform on traffic studies needed to provide different types of pedestrian crossing facility on high speed urban arterials. Then, information regarding crashes involving pedestrians (fatal and serious injury) will be collected for most-recent available 5 years. From this compiled inventory, analyses will

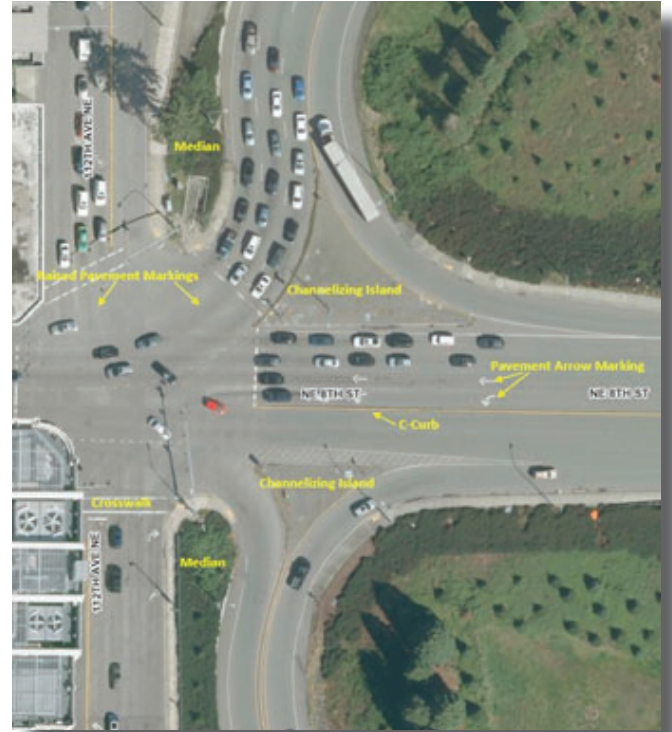


**Figure 1**  
Traffic calming facilities at crosswalk  
(Source: ITS International, April 2015)

be performed to determine any associations between pedestrian crashes and factors such as crash location, roadway characteristics, and probable cause of crash. Any observed trends will be documented for consideration when establishing a policy regarding pedestrian crossing facilities on high speed arterials.

## IMPLEMENTATION POTENTIAL

Results obtained from this study will lead to a better understanding of the need for providing pedestrian crossing facilities on Louisiana's high speed urban arterials.



**Figure 2**  
*Pedestrian crossing facilities on multilane highway*  
(Source: Streets are for Everyone, April 2016)