

ODOT Designs Pedestrian Safety Program to Fast-Track Project Construction

Ohio Department of Transportation

KEY ELEMENTS:



Incorporating STEP Countermeasures



Implementation Focused

The Ohio Department of Transportation created the Pedestrian Safety Improvement Program to rapidly implement low and medium-cost countermeasures along arterials and collectors. The program incorporates STEP countermeasures at midblock locations and intersections.

INTRODUCTION

The Ohio Department of Transportation (ODOT) developed the Pedestrian Safety Improvement Program (PSIP) in 2019 to address increasing pedestrian crashes in cities and towns. The Mid-Ohio Regional Planning Commission (MORPC) provided an example for how ODOT could construct pedestrian safety improvements at high risk locations utilizing Highway Safety Improvement Program (HSIP) funds. After analyzing its roadway network for high risk locations, MORPC successfully upgraded 100 crossing locations with improvements like high visibility crosswalks, Rectangular Rapid Flashing Beacons, and pedestrian signal head countdown timers. ODOT recognized the success of the MORPC program and decided to scale it statewide.

To determine the PSIP's direction, ODOT conducted a systemic analysis of pedestrian crashes on all state and non-state maintained roads. ODOT learned that over 54 percent of fatal and severe injury pedestrian crashes occurred on arterials, but that arterials represented only 7 percent of the total roadway system's miles. Further, cities and municipalities maintained most of these facilities. This over representation focused ODOT on non-system arterials, specifically 4-lane facilities, and ODOT later included collectors to allow for program flexibility. Crash typing also indicated midblock crossings as the most common fatal pedestrian scenario.

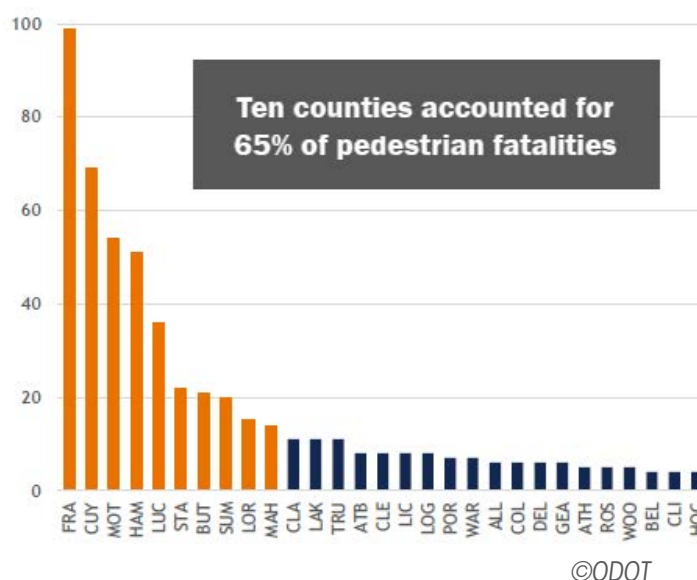


Figure 1. Graphic. Pedestrian fatalities by county.



Case Study: ODOT Designs Pedestrian Safety Program to Fast-Track Project Construction

STEP: https://safety.fhwa.dot.gov/ped_bike/step/

PROGRAM APPROACH

ODOT understood that it could not extend the PSIP to the State's 2,000 local governments, so it crafted the initial program to address eight high-crash cities. First, ODOT held preliminary discussions with the cities to gauge program interest and gather feedback. After incorporating comments, ODOT formally extended invitations to the eight cities to join the program; all eight accepted.

ODOT designed the PSIP to reduce the administrative and project development burden on municipalities wherever possible. These steps included structuring the program funding as budgets instead of a funds transfer, ODOT selecting the high-risk corridors, and ODOT assuming engineering and construction. The municipalities were responsible for proposing the specific project locations and appropriate countermeasure packages.

COUNTERMEASURE SELECTION

The PSIP incorporated a menu of low and medium-cost countermeasures to both expedite project delivery and stay within budget constraints. ODOT incorporated most of the Safe Transportation for Every Pedestrian (STEP) countermeasures as part of the approved countermeasure list.

Participating cities received site selection criteria and a cost estimator tool to help guide their project selection. These resources supported a standardized approach for identifying countermeasures. City staff then prepared their project recommendations and submitted for ODOT review.

ODOT received over 500 project location requests during the program's first round. After vetting right-of-way impacts and other feasibility metrics, there were 455 project locations. Projects included Pedestrian Hybrid Beacons (PHB), high visibility marked crosswalks, pedestrian signal heads, raised crosswalks, and curb extensions, among others.

FUNDING AND IMPLEMENTATION

Initial PSIP funding was \$10 million for a two-year cycle, with the majority from the HSIP and supplemented by toll revenue credit. Cities were allocated base funding of approximately \$500,000 each with additional funding correlated to their share of fatal and serious injury crashes. Once ODOT approves submitted projects, the streamlined program allows projects to proceed from planning to construction within an anticipated 12-18 months. ODOT plans to review the program's performance and consider expanding the program to the next tier of high-crash cities.

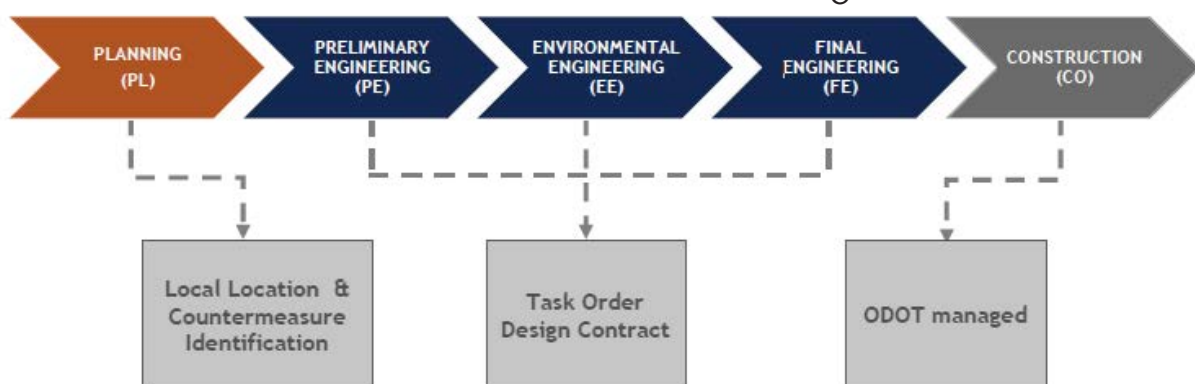


Figure 2. Graphic. PSIP program schedule and responsibilities.

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