



## Protected Left Turn



### Costs

LOW

MED

HIGH

### Timeframe

SHORT

MED

LONG

### Effectiveness

LOW

MED

HIGH

# 99%

### CRASH REDUCTION FACTOR

Protected left-turns have been shown to reduce left-turn crashes by 99%.<sup>3</sup>

### What is a protected turn?

» A dedicated left turn signal (AKA a left-turn arrow). It provides people turning left with an exclusive opportunity to turn while opposing traffic and pedestrians are stopped, resulting in a significant reduction in conflicts among people driving and walking.

### What are its purpose and benefits?

- » One of the most common conflicts at intersections with traffic signals is the competition between vehicles turning left and people walking in the crosswalk. Without a green arrow, people driving must yield to oncoming traffic, to make their left turn. When doing so, they typically focus on on-coming traffic to look for gaps and may not pay due attention to people walking in the crosswalk.<sup>1</sup>
- » It virtually eliminates crashes involving left-turning traffic for the affected intersection/direction.

### Where should this safety tool be used?

- » Where there are conflicts between left turning traffic, opposing traffic, and people walking.<sup>2</sup>
- » At intersections with limited sight distance - where people driving can't see oncoming traffic for a long enough period to judge if they'll have enough time to make the turn.<sup>2</sup>

### What else should I know about protected left turns?

- » May result in increased waiting time at the signal for all directions and movements.<sup>1</sup>
- » Requires an existing left-turn pocket (aka left turn lane).

Notes: 1. *Left Turn Phasing*. PEDSAFE. 2. *Evaluating Intersection Improvements: An Engineering Study Guide*. National Cooperative Highway Research Program. 3. *Desktop Reference for Crash Reduction Factors*. Federal Highway Administration.