

An Act Relative to Improving Safety on the Roads of the Commonwealth

Truck Side Guards

Would require state-owned and contracted heavy trucks to be equipped with convex and cross-over mirrors, and sideguards.

Proposed MGL Chapter 90 Section 1 Amendment (definitions)

"Convex mirrors", door-mounted, wide-angle mirrors that enable an operator to see objects along the left and right sides of a motor vehicle, trailer, semi-trailer or semi-trailer unit.

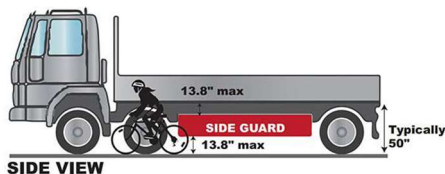
"Cross-over mirrors", mirrors mounted on a hood or fender that enable the operator to see objects in the area immediately in front of a conventional cab hood.

"Lateral protective device", an apparatus installed on a motor vehicle, trailer, semi-trailer or semi-trailer unit between the front and rear wheels to help prevent injuries to a vulnerable user, particularly from falling underneath the vehicle.

Proposed Massachusetts MGL Chapter 90 Section 7

A class 3 or above motor vehicle, trailer, semi-trailer or semi-trailer unit, as classified by the Federal Highway Administration, with a gross vehicle weight rating of more than 10,000 pounds, shall be equipped with a lateral protective device, convex mirrors and cross-over mirrors if it is purchased or leased by the commonwealth. This paragraph shall not apply to an ambulance, fire apparatus, low-speed vehicle, agricultural tractor, vehicles used exclusively for snow and ice removal or any other class or type of vehicle as determined by the registrar. The registrar shall adopt regulations establishing standards, consistent with the United States Department of Transportation's Volpe side guard standard DOT-VNTSC-OSTR38 16-05, and specifications for the size, design and mounting of lateral protective devices, convex mirrors and cross-over mirrors. The registrar may provide for exemptions consistent with this provision and alternative means of compliance with the convex mirror and cross-over mirror requirement, including use of cameras and sensors, and said regulations may provide alternative means of compliance for the lateral protective devices requirement.

Large trucks comprise 4% of registered vehicles, but are involved in **10% of pedestrian and bicyclist fatalities.**



Class 1 Motorcycles	Class 7 Four or more axle, single unit
Class 2 Passenger cars	Class 8 Four or less axle, single trailer
Class 3 Four axle, single unit	Class 9 3 Axle tractor/semi-trailer
Class 4 Buses	Class 10 Six or more axle, single trailer
Class 5 Two axle, six axle, single unit	Class 11 Four or less axle, multi-trailer
Class 6 Three axle, single unit	Class 12 Six axle, multi-trailer
	Class 13 Seven or more axle, multi-trailer

Large Trucks - Inherent Vehicle Design Challenges

- Increased injury severity due to size & weight
- Limited situational awareness for operator
- Large blind spots

Nearly **half of bicyclists** and more than **one-quarter of pedestrians** killed by a large truck first impact the side of a truck.

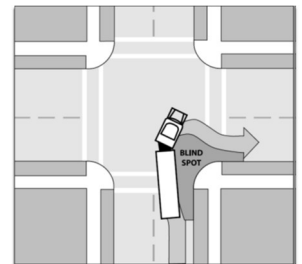
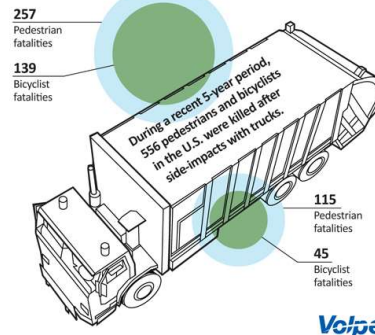
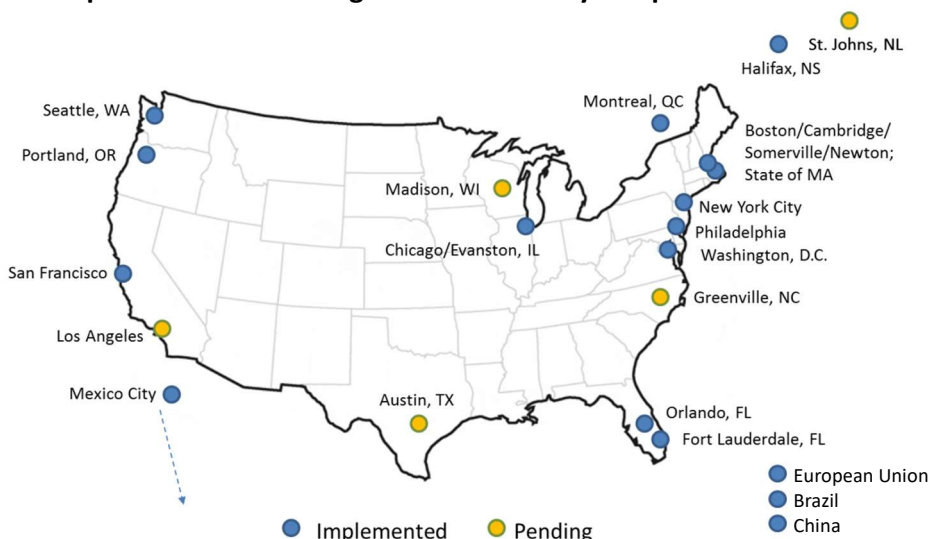


Diagram of blind spot while a tractor-trailer turns right, Missouri Bicycle and Pedestrian Federation, 2006

Implemented & Pending Side Guard Policy Adoption



Source: Volpe Center

Following the national sideguard mandate in the UK, there was a **61% drop in cyclist fatalities** and a **20% drop in pedestrian fatalities** in side-impact collisions with trucks.