

1 Walking should not be a life-or-death activity. Yet, in the United States,
2 walking is increasingly dangerous.

3 In 2019, pedestrians accounted for 17% of all traffic deaths, compared with
4 11% in 2009, that's a 55% increase!

5 Many factors have combined to put pedestrians at historic levels of risk.

6 Increases in speeding, distracted and impaired driving, and the shift in
7 vehicle sales from passenger cars to light trucks and SUVs are all factors.

8 Current data also shows that most of the deaths are occurring on our
9 busiest suburban and urban roads; they usually happen away from the
10 intersection; and most occur at night. In fact, three out of every four
11 pedestrian fatalities occur in the dark.

12 What can we, as transportation professionals, do to make pedestrian travel
13 safer?

14 The short answer is A LOT. For example, simply adding sidewalks can
15 reduce pedestrian-involved crashes by 88%.

16 For more solutions, we can look to the Federal Highway Administration
17 (FHWA) for guidance and potential solutions in their STEP – Safe

18 Transportation for Every Pedestrian – initiative, and the safety
19 countermeasures they call the Spectacular Seven. For example,

20 *Raised Crosswalks*

21 Spanning the width of the roadway, raised crosswalks are ramped speed
22 tables that elevate the pedestrian crossing by 3 to 6 inches. Typically,
23 raised crosswalks are used at midblock locations. These crosswalks can
24 slow traffic and allow the pedestrian to cross at grade with the sidewalk,
25 making the pedestrian more visible to drivers.

26 Raised crosswalks can result in a 45% reduction in pedestrian crashes.

27 *Leading Pedestrian Intervals*

28 Leading Pedestrian Intervals are adjustments to signal timing that allow
29 pedestrians to walk, usually 3 to 7 seconds, before vehicles get a green
30 signal. The LPI increases visibility, reduces conflicts, and improves
31 yielding. In fact, providing a leading pedestrian interval can reduce
32 pedestrian crashes by 13%.

33 *Pedestrian Refuge Island*

34 Pedestrian Refuge Islands provide pedestrians a safer place to stop at the
35 midpoint of the roadway. This allows pedestrians to focus on crossing one

36 direction of traffic at a time. This is particularly helpful on roads with four or
37 more lanes and for pedestrians with limited mobility.

38 Pedestrian Refuge Island can reduce pedestrian crashes by 32%.

39 *Road Diet*

40 Road Diets reallocate the use of the existing pavement. Typically, an
41 existing four-lane undivided roadway is reconfigured into one through-lane
42 in each direction, a two-way left turn lane, and bicycle lanes. Road diets
43 reduce vehicle speeds and the number of lanes that pedestrians cross.

44 Road diets can also create space to add new pedestrian facilities, such as
45 a pedestrian refuge island. In the new configuration, the bicycle lanes serve
46 as a buffer between the sidewalk and vehicular traffic.

47 Road Diets have been found to decrease pedestrian crashes by 19% in
48 urban settings and 47% in suburban areas.

49 *Rectangular rapid flashing beacons (RRFBs)*

50 Rectangular rapid flashing beacons (RRFBs) include two rectangular
51 shaped yellow beacons that use an irregular flash pattern alerting drivers of
52 the presents of pedestrians. RRFBs are usually used at mid-block
53 uncontrolled crossing locations. They are often used with crosswalk
54 visibility enhancements and pedestrian refuge islands.

55 RRFBs significantly increase driver yielding behavior and can reduce
56 pedestrian crashes on average by 47%.

57 *Pedestrian Hybrid Beacon*

58 Pedestrian hybrid beacons (PHB) include two red lenses above a single
59 yellow lens. PHB rest in the dark phase until actuated by a pedestrian.
60 When active, the pedestrian hybrid beacon's red signal indication removes
61 any judgment from the motorists and requires a complete stop. The PHB
62 provides a clear message that motorists must stop and allow pedestrians to
63 cross the street. Used for higher-speed, multilane roadways with higher
64 vehicular volumes, the PHB is an intermediate option between a flashing
65 beacon and a full pedestrian signal.

66 PHBs can reduce pedestrian crashes by 55%.

67 *Crosswalk Visibility Enhancements*

68 Crosswalk visibility enhancements is a grouping of countermeasures that
69 includes crosswalk lighting, enhanced signage and markings, and
70 geometric design elements that help drivers detect pedestrians –
71 particularly at night. High visibility markings, restricted parking on the
72 crosswalk approaches, advance signage, curb extensions, and improved

73 nighttime lighting are all tools in the crosswalk visibility enhancements
74 toolbox.

75 Using these tools can reduce crosswalk pedestrian crashes from 23 to
76 48%.

77 As you can see, many tools are available to transportation professionals
78 and road-owning agencies to improve the safety of pedestrians. Something
79 as simple as adding a sidewalk, especially where the need is evident, can
80 dramatically reduce the risk assumed by pedestrians using the right-of-way.

81 For more complex or site-specific concerns, FHWA's STEP initiative
82 provides additional guidance.

83 To learn more, visit FHWA's STEP website or contact ATAP.