

## What is a Roundabout?

A roundabout is a type of circular intersection, but is quite unlike a neighborhood traffic circle or large rotary. Roundabouts have been proven safer and more efficient than other types of circular intersections.

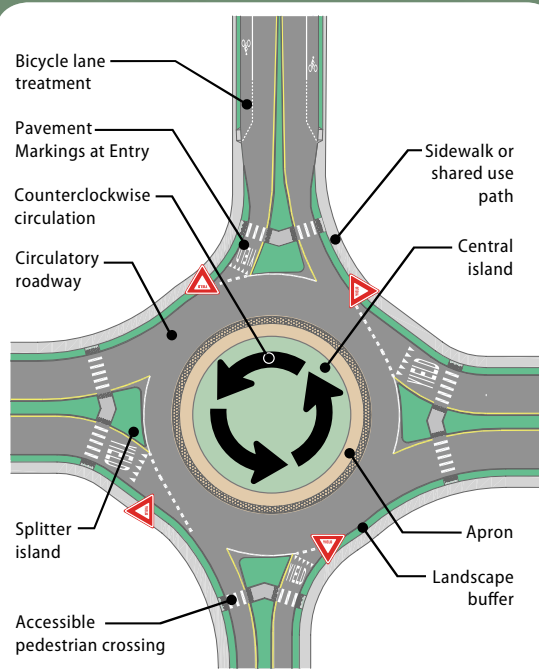


Figure 1. Modern Roundabout Schematic

Roundabouts have certain essential distinguishing features:

- **Counterclockwise Flow.** Traffic travels counterclockwise around a center island.
- **Entry Yield Control.** Vehicles entering the roundabout yield to traffic already circulating.
- **Low Speed.** Curvature that results in lower vehicle speeds (15-25 mph) throughout the roundabout.

FHWA identified roundabouts as a **Proven Safety**

**Countermeasure** because of their ability to substantially reduce the types of crashes that result in injury or loss of life. Roundabouts are designed to improve safety for all users, including pedestrians and bicycles. They also provide significant operational benefits compared to conventional intersections.

**On average, roundabouts reduce severe crashes – those resulting in injury or loss of life – by 78-82%<sup>1</sup>**

<sup>1</sup> *Highway Safety Manual*, American Association of State Highway and Transportation Officials, Washington, DC, 2010.

## Educational Resources

Michigan “How to Use a Roundabout – Sharing the Road” Informational Brochure

[www.michigan.gov/documents/mdot/MDOT\\_RoundaboutPedBikeBrochure\\_465164\\_7.pdf](http://www.michigan.gov/documents/mdot/MDOT_RoundaboutPedBikeBrochure_465164_7.pdf)

New York Guidance for Roundabout Users

[www.dot.ny.gov/main/roundabouts/guide-users/pedestrians](http://www.dot.ny.gov/main/roundabouts/guide-users/pedestrians)

Washington State videos for Roundabouts and Pedestrians and Bicycles

[www.wsdot.wa.gov/Safety/roundabouts/PedestriansCyclists.htm](http://www.wsdot.wa.gov/Safety/roundabouts/PedestriansCyclists.htm)

## Leveraging Partnerships

PEDSAFE Pedestrian Safety Guide & Countermeasure Selection System - Roundabouts

[www.pedbikesafe.org/PEDSAFE/countermeasures\\_detail.cfm?CM\\_NUM=25](http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=25)

BIKESAFE Bicycle Safety Guide & Countermeasure Selection System – Roundabouts

[www.pedbikesafe.org/BIKESAFE/countermeasures\\_detail.cfm?CM\\_NUM=17](http://www.pedbikesafe.org/BIKESAFE/countermeasures_detail.cfm?CM_NUM=17)

Choosing Roundabouts for Safe Routes to School

[www.saferoutesinfo.org/program-tools/case-study-bellingham-wa](http://www.saferoutesinfo.org/program-tools/case-study-bellingham-wa)

AARP Livable Communities Fact Sheet Series

[www.aarp.org/livable-communities/info-2014/livability-factsheet-modern-roundabouts.html](http://www.aarp.org/livable-communities/info-2014/livability-factsheet-modern-roundabouts.html)

## For More Information

Jeffrey Shaw, P.E., PTOE, PTP

FHWA Office of Safety

708.283.3524 or [jeffrey.shaw@dot.gov](mailto:jeffrey.shaw@dot.gov)

Hillary Isebrands, P.E., PhD

FHWA Resource Center

720.963.3222 or [hillary.isebrands@dot.gov](mailto:hillary.isebrands@dot.gov)

To learn more about roundabouts, please visit:

[safety.fhwa.dot.gov](http://safety.fhwa.dot.gov)

Publication number FHWA-SA-15-016



Cover photo source: Google Earth Pro

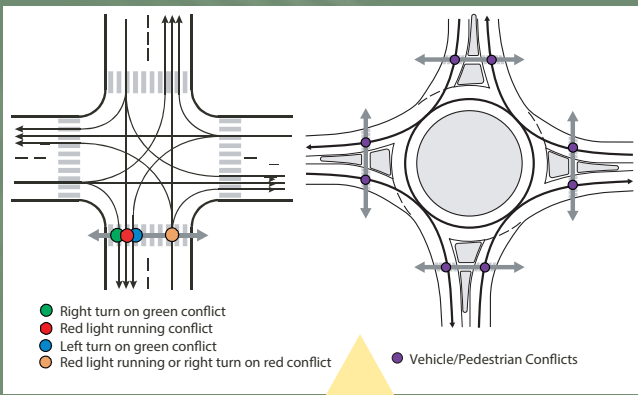


U.S. Department of Transportation  
Federal Highway Administration

# ROUNDABOUTS with Pedestrians & Bicycles

## A Safe Choice for Everyone





**Less conflict.** Roundabouts have fewer conflict points. A single lane roundabout has 50% fewer pedestrian-vehicle conflict points than a comparable stop or signal controlled intersection. Conflicts between bicycles and vehicles are reduced as well.

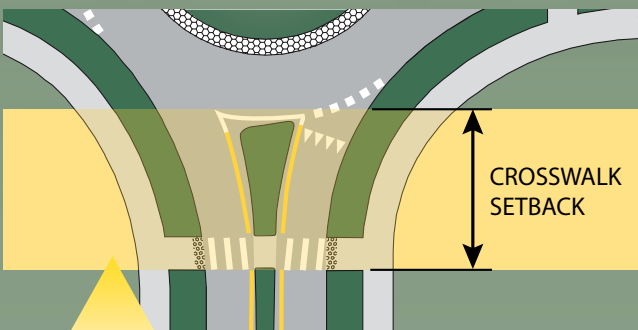
**Lower speed.**

Traffic speed at any road or intersection is vitally important to the safety of everyone, and especially non-motorized users. Lower speed is associated with better yielding rates, reduced vehicle stopping distance, and lower risk of collision injury or fatality. Also, the speed of traffic through a roundabout is more consistent with comfortable bicycle riding speed.



**Features for All Users.** Adding certain treatments at roundabouts can enhance the experience for both pedestrians and bicycles.

- At more complex roundabouts, such as those with multiple lanes, certain design elements and enhanced crossing treatments can improve accessibility for visually impaired pedestrians.
- Where bicycle facilities lead to a roundabout, providing an option to bicyclists to either ride in the travel lane or use a ramp to and from a separated shared use path.



**Shorter, setback crossings.**

Pedestrians cross a shorter distance of only one direction of traffic at a time since the entering and exiting flows are separated. Drivers focus on pedestrians apart from entering, circulating and exiting maneuvers.

