

Information on Roundabouts



What is a roundabout? Why are roundabouts used instead of a traffic signal?

Are roundabouts safer? How do I navigate a roundabout?

What is a roundabout?

A modern roundabout is an unsignalized circular intersection engineered to maximize safety and minimize traffic delay. Over the last few decades, thousands of roundabouts have been installed in Europe, Australia, and other parts of the world. Recently, roundabouts have gained support in the United States with many states getting experience with their use and design. In the cities and towns where roundabouts have been built, and even where the public has been hesitant about accepting them initially, roundabouts ultimately have been accepted enthusiastically because of the increased safety they provide along with traffic calming, and aesthetic benefits.

Why are roundabouts used instead of traffic signals?

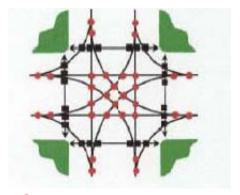
In a recent Insurance Institute for Highway Safety study of 24 intersections in the United States where STOP control and traffic signals were replaced with modern roundabouts, there was a large drop in crashes.

- ▶39 percent overall crash reduction
- ▶ 76 percent overall injury reduction
- ▶90 percent fatal crash reduction

Roundabouts reduce vehicle speeds, minimize vehicle weaving, automatically establish right-of-way and reduce points of conflict.

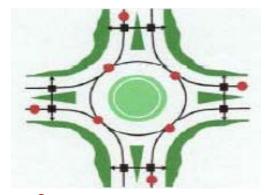
How can such a drop in crashes be explained?

One reason is that there is a reduction in the number of conflict points within the intersection. The circulatory vehicle movements at roundabouts eliminate or drastically reduce the critical conflicts resulting from red light running, left turn against opposing traffic, right angle conflicts at corners and rear-end collisions. As the figure below shows, a standard intersection has 32 potential vehicle-to-vehicle conflicts versus eight for a roundabout, according to the Federal Highway Administration's Roundabout Guide. In addition, modern roundabouts are designed such that traffic enters at nearly right angles to the circulating traffic. Also, roundabouts are relatively small (compared to traffic circles) so traffic speeds are slower. This allows more opportunities to enter the circulating traffic and fewer crashes result.



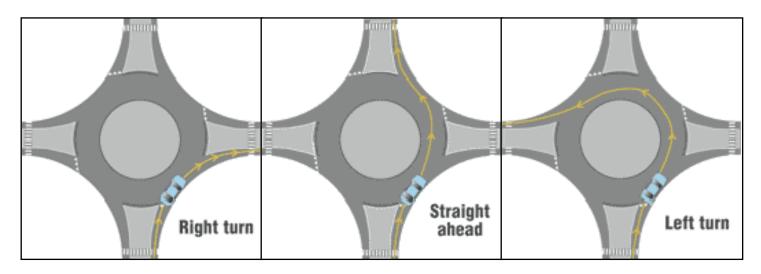
32 Vehicle to vehilce Conflicts

24 Vehicle to pedestrian conflicts



8 Vehicle to vehilce Conflicts

8 Vehicle to pedestrian conflicts



Examples of how to navigate through a typical roundabout.

How do I navigate the roundabout?



. Drivers in a roundabout:

- Look to the left, as traffic in the roundabout has the right-of-way.
- When approaching the roundabout, slow down and yield to pedestrians.
- Enter when it is safe and there is an adequate gap in the circulating traffic flow.
- Keep your speed low within the roundabout.
- As you approach your exit, turn on your turn signal.
- Exit carefully to your destination, yielding to pedestrians.

NA.

Bicyclists in a roundabout:

- If you are riding on the shoulder or bike lane, merge into the traffic lane before the shoulder/bike lane ends.
- Signal your intent to move into traffic.
- Once inside the roundabout, don't hug the curb.
- Ride close to the middle of the lane to prevent vehicles from passing and cutting you off.
- Watch for vehicles waiting to enter the roundabout, as they may or may not see you!
- If you do not want to ride your bicycle in the roundabout, use the sidewalks to walk you bicycle and proceed as a pedestrian.



Trucks in a roundabout:

- Drive on the circulatory roadway, except large trucks may use the truck apron provided to negotiate the tight turning radius.
- Drive on the raised pavement of the truck apron to navigate more easily.
- Cars should not use the truck apron.



Pedestrians in a roundabout:

- Stay on designated walkways at all times.
- Watch for vehicles, you have the right-of-way, but your best protection is your own attention.
- Cross one set of lanes at a time, using the splitter island as a refuge area before crossing the next set of lanes.
- Never cross to the large round center central island.

Want More Information?

This flyer is for general purposes only. For more information, please contact the Beaufort County Traffic & Transportation Engineering Department at (843) 255-2940 or <u>click here</u>

NOTE: The MUTCD is used throughout the country as the standard by which traffic control decisions are made. The complete MUTCD can be found at: http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/pdf index.htm