



THE NEW ALEXANDER ROAD BRIDGE AND ROUNDABOUT

ROUNDABOUT SAFETY

The following text is taken from documentation provided by the New Jersey Department of Transportation.

Myths and Facts about Roundabouts

Myth

Roundabouts cause longer commutes.

Roundabouts are difficult to maneuver.

Roundabouts are not safe for pedestrians.

Roundabouts cause more accidents than the stops signs or traffic signals that they replace.

Fact

Roundabouts keep traffic moving. The major delay on a person's morning or evening commute is usually the time spent sitting at traffic signals. Eliminating the need to stop and wait reduces delay.

Using a roundabout is much the same as making a "right turn on red." At a traffic signal, a right-turning driver stops at the stop bar, looks for conflicting traffic coming from the left, chooses an acceptable gap in the traffic flow, and then turns right onto the cross street. At a modern roundabout, the oncoming driver approaches the yield line, looks for conflicting traffic coming from the left, chooses an acceptable gap in the traffic flow, and then enters the roundabout with a right turn at the yield sign. Once inside the roundabout, a driver continues circling counter-clockwise until reaching the desired exit. Exit maneuvers are also right turns.

Roundabouts are very pedestrian friendly. The splitter islands provide a space for pedestrians in the middle of each crossing. Therefore, pedestrians only need to cross one direction of traffic at a time. The pedestrian crosswalks are set at least one full car length back from the yield line. That way, pedestrians do not have to cross in front of drivers that are looking for their gap in traffic. Experience has shown that the stopped vehicle one car length back from the yield line is more aware of pedestrians.

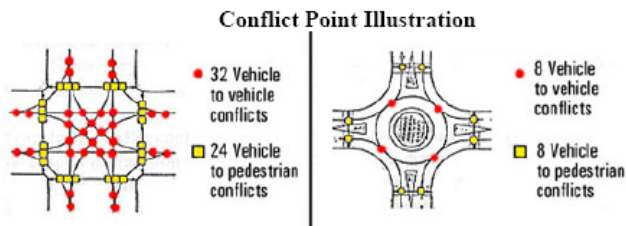
According to the [Insurance Institute for Highway Safety](#), modern roundabouts reduce motor vehicle crashes. Their July 2001 Status Report noted "most serious kinds of crashes at conventional intersections are virtually eliminated by roundabouts... Crashes that do occur tend to be minor because traffic speeds are slower." The study reviewed 24 intersections around the U.S. that have been converted from stop signs or traffic signals to modern roundabouts. At those intersections, all crashes were reduced by 39%. Serious crashes were reduced by 76%. At the time of the study, there had been no fatalities at any of the new roundabouts. So, the study estimates that fatal or incapacitating injuries will be reduced by 90% at those intersections.





SAFETY AND OPERATIONAL PERFORMANCE

How can such impressive accident reductions be explained? One reason is that there is a reduction in the number of conflict points within the facility. As the figure below shows, a standard intersection has 32 potential vehicle-to-vehicle conflicts versus 8 for a roundabout. In addition, modern roundabouts are designed such that traffic enters at nearly right angles to the circulating traffic. The merging lanes that characterized traffic circles (and led to confusion over who has the right-of-way) have been eliminated. Third, roundabouts are relatively small, particularly when compared with typical traffic circles. So, traffic speeds are slower, there are more opportunities to enter circulating traffic, and fewer accidents result.



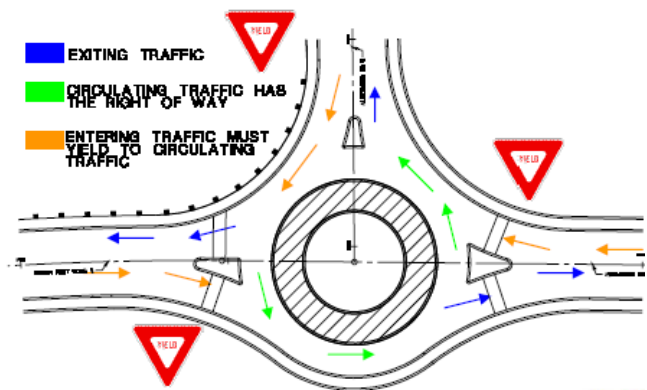
NAVIGATING A ROUNDABOUT

Motor Vehicles



Approaching and Entering the Roundabout

- When approaching the roundabout, follow the lane designation signs, slow down and yield to pedestrians in the crosswalk. Look to the left.
- Traffic in the roundabout has the right-of-way.
- Approach the yield line and enter the roundabout when there is an adequate gap in the circulating traffic flow. If another car is waiting at the yield line ahead of you, do not stop in the crosswalk.
- Keep the crosswalk clear for pedestrians. Bicyclists are permitted to ride within the roundabout.
- Please share the road and do not pass a bicycle in the roundabout.





Navigating a Roundabout



Motor Vehicles

Exiting the Roundabout

- Once you have entered the roundabout, proceed counter-clockwise to your exit. You now have the right-of-way.
- As you approach your exit, turn on your right turn signal.
- Exit the roundabout, yielding to pedestrians in the crosswalk.



Trucks

- Drive on the circulatory roadway, except large trucks and trailers may use the truck apron provided to negotiate the tight turning radius.
- Drive (usually with just the rear wheels) on the raised pavement of the truck apron to navigate more easily.
- Cars should not use the truck apron.
- Emergency vehicles such as large fire engines can easily navigate the roundabout by riding over 15' inner truck apron.



Pedestrians

- Stay on the designated walkways at all times.
- Cross only at the designated crosswalks.
- Never cross to the central island.
- Watch for cars; you have the right-of-way, but your best protection is your own attention.
- Cross the crosswalk one lane at a time, using the splitter island as a refuge area before crossing the next lane.



Bicyclists

- You are strongly encouraged not to ride within the roundabout itself. Studies have determined that the safest way to proceed through a roundabout intersection is to walk your bicycle.
- If you are comfortable riding in traffic, take the lane and circulate like you are a vehicle, making sure you yield to traffic in the circle when entering.
- Ride at the speed of the circular roadway to discourage cars from passing you.
- When you exit the roundabout, use your right hand signal.
- If you are unsure about using the roundabout, dismount and walk your bike as a pedestrian at the designated crosswalks.