

Imagine a busy intersection where:

There aren't any stop signs or stop lights

There isn't a long delay, even if you have to wait

There are fewer (and less severe) collisions than we see at four-way intersections.

We have intersections with those types of features: they are roundabouts!

If you have never driven a roundabout, chances are good that you will soon. The first one in Kansas was built in Manhattan in 1997. And by 2007, about 60 more have been built in the state. The Kansas Department of Transportation (KDOT), as well as local governments, use roundabouts to reduce conflicts, increase intersection capacity, control speed, and reduce the number and severity of crashes. In this video, you'll learn more about why we build them and how to drive them.

Roundabouts are circular intersections where vehicles travel counter-clockwise around a center island. Roundabouts require drivers to slow down and drive in one direction around a center island. This promotes a safe and efficient traffic flow. And, stop lights or stop signs are no longer needed!

Let's look closer at how roundabouts promote safety and better traffic flow.

First, safety. According to a 2001 study of 23 American intersections conducted by the Insurance Institute for Highway Safety, changing from traffic signals or stop signs to roundabouts reduced injury crashes by 80 percent and all crashes by 40 percent. Other studies have reported similar results. When crashes in roundabouts do occur, the extent of personal injury and amount of property damage is substantially reduced.

Roundabouts are safer because vehicles move slowly in one direction. This nearly eliminates head-on or right-angle crashes that happen at four-way intersections. Driving in one direction reduces the number of conflict points. Conflict points are areas where collisions could occur as traffic paths cross. A four-way intersection has 32 conflict points. However, a single lane roundabout has only eight conflict points. When crashes do occur in a roundabout, they are generally slow-speed side-swipes with fewer, less serious injuries.

We've also mentioned better traffic flow. With roundabouts, drivers move through a roundabout at a reduced speed instead of coming to a complete stop. Although it may be necessary to stop and yield to traffic already in a roundabout, motorists usually don't have the long delays that can occur at a traffic signal or stop sign. This increases the traffic capacity of an intersection and reduces vehicle emissions and fuel consumption.

Along with a safer and improved traffic flow, roundabouts also eliminate the expense of maintaining traffic signals. And, they can be landscaped to improve the appearance of the intersection.

During the past ten years, KDOT has determined roundabouts are so effective that “multi-lane” roundabouts have been introduced at several locations in Kansas and more are expected. Just as a four-lane highway handles more vehicles than a two-lane highway, a multi-lane roundabout handles more traffic than a single-lane design. This means the benefits of increased safety and less delay are available at larger, more congested intersections in high traffic areas throughout the state.

There are features of roundabouts that distinguish them from four-way intersections. For example:

A raised central island, around which traffic circulates in a counterclockwise direction

A raised or painted, flared splitter island at the entry to separate entering and exiting traffic, and deflect and slow entering vehicles

An apron around the center island to give extra space for large trucks; and

A yield line to mark the point where entering drivers must yield to oncoming traffic in the roundabout.

These are some of the key benefits and features of a roundabout. So now, let’s review how to actually drive through one. There are four basic steps to driving a roundabout: approach slowly, yield at the entrance, drive to the right of the center island, and exit when your turn comes.

(Approaching the roundabout)

When you approach a roundabout, slow down and decide as early as possible which exit you want to take.

Keep an eye out for motorcyclists.

Watch for bicycles, too, and treat them just like a motorized vehicle.

And, keep to the right of the splitter island and yield to pedestrians using the crosswalk.

These are the keys to approaching a roundabout. The second key involves the need to yield when entering the roundabout.

At the entry line, check for and yield to traffic coming from the left.

If an emergency vehicle is approaching, wait for the emergency vehicle to use the roundabout before entering.

Once your desired lane is clear, you’re ready to drive in the roundabout.

Remember not to stop in the roundabout except to avoid a collision. You have the right-of-way over entering traffic. Stay to the right of the central island, keep moving, and travel in a counterclockwise direction.

If an emergency vehicle approaches from behind or at an entrance, drive to your exit and past the splitter island before pulling to the right.

Now that you've successfully approached, yielded and driven through a roundabout, you are ready to exit.

First, signal your intention to exit using your right-turn signal. Watch for and yield to pedestrians at the crosswalk on the exit leg. Maintain a slow speed as you exit and accelerate when you are beyond the splitter island.

What if you miss your exit? You don't lose your chance to exit if you miss it the first time. It is easy to get right back on course. Just drive through the roundabout again and take the appropriate exit.

These are the basic rules for using a single-lane roundabout. And there are a few more keys when you encounter a multi-lane roundabout. The same basic steps apply, with these additions.

As you approach a multi-lane roundabout, lane-use signs will guide you into the correct lane.

For instance, use the left lane for going straight, making a left turn, or for a U-turn.

Use the right lane for a right turn or for going straight.

And, for a three-lane roundabout, the center lane may be limited to going straight or it may be used for a left turn, going straight or making a U-turn. Again, the lane-use signs will guide you into the correct lane.

When you enter a multi-lane roundabout, don't enter next to vehicles in the roundabout, since they may use the next exit.

When you're driving in a multi-lane roundabout, follow the lane lines and stay in your lane. Often, you can enter and exit using the same lane, so don't change lanes in the roundabout unless you have to in order to exit.

Also, don't pass other vehicles in the roundabout and watch for traffic crossing in front of you.

As you exit a multi-lane roundabout, signal your intention using your right-turn signal and watch for other vehicles. If the way isn't clear, go around again and take your exit when the lane is clear.

Whether it's a single or multi-lane roundabout, there are frequent questions about large trucks. How do they use roundabouts? Roundabouts are designed to accommodate large vehicles such as fire trucks, school busses and tractor-trailer trucks. Some people have

seen truck tires go over the center apron or they've seen tire marks and they've concluded the roundabout is too small.

However, the apron around the center island is designed to give trucks and busses the extra room they need, while the low curb forces smaller vehicles to slow down and stay in the driving lanes.

The key for trucks is to drive the cab on the driving lanes and let the rear trailer wheels off-track onto the apron if needed. Motorists should give trucks the space they may need to use two lanes while driving through a multilane roundabout.

Now you may be asking: if roundabouts are so wonderful, why do some people complain about them? Perhaps because they are relatively new, and not like the typical four-way intersections we're used to. But, we've successfully adapted to other new driving experiences.

For instance, back in 1941, the first clover-leaf interchange in Kansas was opened in Topeka at the intersection of U.S. 75 and U.S. 24. On the day it opened, hundreds of drivers came to try it out and they had a tough time negotiating it! If their intended route was to their left, they were perplexed at the thought of turning right to get there.

Of course, now everyone knows how to drive through an interchange. Just as that "new driving experience" has become a matter of daily driving, we expect the same result with roundabouts over time and as experience with them grows—just like interchanges.

During this video, we've emphasized that roundabouts are built to manage intersections for two compelling reasons: safety and reducing delay.

We've also reviewed the steps for using a roundabout: approach slowly, yield at the entrance, drive to the right of the center island, and exit when your turn comes. And, when entering a multi-lane roundabout, follow other vehicles instead of driving beside them at your point of entry.

Whether single or multi-lane, the safety and reduced delay unique to roundabouts make learning to drive them worth the effort.

Additional copies of this production are available upon request. To order, visit the Kansas Department of Transportation web site at [www.ksdot.org](http://www.ksdot.org) or contact the Bureau of Traffic Engineering at (785) 296-3618.