

Roundabout Myths and Facts

Happy Pi Day everybody! As you might have read from my [Medium article](#), I tend to be “thinking round” on most days, but today is a great day to talk about roundabout myths and facts. I’ll be going over some of the common myths about roundabouts and providing the actual facts to debunk them.



When you see this sign, slow down.

Myth: Engineers design roundabouts to be too small.

Fact: The smaller size of a roundabout is actually a large part of how they calm traffic. Roundabouts are designed just large enough so that they can accommodate a specific design vehicle, in most cases a tractor-trailer, and have a mountable apron for large vehicles around the central island, and also for right-turning large vehicles, if necessary. Some roundabouts called mini-roundabouts have diameters less than 90-feet and are still able to accommodate large trucks and buses via a totally mountable central island. In all configurations, the smaller diameter of a roundabout creates a slow circulating speed, and that reduction in speed is largely what gives roundabouts their excellent safety record.



Roundabouts keep traffic flowing slowly and safely

Myth: Roundabouts won't work because with constantly moving traffic there will be constant backups of vehicles waiting to enter, and vehicles downstream won't be able to exit.

Fact: Roundabouts are more efficient than signalized or stop controlled intersections in most common traffic situations, and this has most famously been proven by none other than [Mythbusters](#). The slower entry and circulating speeds create gaps in the traffic not only within the circulatory roadway, but downstream of the roundabout as well. Eventually, if traffic volumes get large enough and are unbalanced, roundabouts are likely to need a signal for metering traffic, but for the vast majority of installations, roundabouts operate efficiently by themselves and will continue to operate efficiently for decades to come.

Myth: Roundabouts have more crashes than a signalized or stop-controlled intersection – therefore they are less safe for vehicles.

Fact: [According to the Insurance Institute for Highway Safety](#), the total number of crashes are actually reduced in a roundabout compared to a signalized or stop controlled intersection by 35-47 percent. Furthermore, fatal crashes are reduced by 90-100 percent and injury crashes are reduced by 72-80 percent. The majority of roundabout crashes that do occur only cause damage to vehicles, and the curved entries not only lower speed, but also increase the angle of entry of a vehicle so that crashes are typically only sideswipes instead of the injury-causing T-bone crashes of a stop-controlled or signalized intersection. While multilane roundabouts may have more crashes than single lane roundabouts when they are first installed, these also usually lessen as users get more familiar with the roundabout.



Remember to yield to traffic already in the roundabout.

Myth: Roundabouts are not as safe for pedestrians or cyclists as a signalized intersection.

Fact: While more than five percent of red-light running fatalities involved pedestrians and cyclists just in 2017, there have only been five known pedestrian deaths and three known cyclist deaths since roundabouts were first implemented in the late 1990s. That's another example of their excellent safety record for all users. Roundabouts provide refuge for crossing pedestrians via their raised splitter islands and only require a pedestrian to look in one direction for each crossing. Crossings are also shorter, and vehicles are traveling slower than they would at a signalized intersection with a green signal. For cyclists, roundabouts offer the user the ability to use the circulatory roadway as a vehicle and/or offer a ramp and shared use path to navigate around the roundabout if a cyclist isn't comfortable riding with traffic. If crashes do occur with pedestrians or cyclists, they are at lower speeds, and therefore the survivability rate is much higher, and the serious injury rate is lower.



Is it a rotary or a roundabout?

Myth: Roundabouts and rotaries are the same.

Fact: This is for my fellow New England readers – a roundabout is very different from a rotary. Rotaries, or traffic circles, were designed to move traffic quickly and efficiently. They have straight entries and exits that are tangent to the circle and large diameters which means higher speeds, and also a greater chance for injury crashes. For multilane rotaries, they required vehicles to change lanes, or weaving within the circle to exit, which also increased the probability of crashes. At rotaries in some states, traffic within the circle also must yield to entering traffic.

Roundabouts are designed to move traffic slowly and safely. They have curved entries that are tangent to the circle and smaller diameters to lower speeds, but also keep traffic flowing. For multilane roundabouts, they are designed so that a vehicle, after entering in the correct lane for its destination, never needs to change lanes to exit. Entering traffic must always yield to traffic within the circulatory roadway in any roundabout.

Rotaries and traffic circles were first implemented in the United States at the start of the 20th century and haven't been built since the mid-1950s, while roundabouts first were implemented in the late 1990s and continue to be built today.

So the next time you hear these common myths about roundabouts, you'll know what the facts are. The benefits of roundabouts aren't just pie in the sky. By separating these myths from facts, we can

advocate for building more roundabouts, saving lives and making our communities more equitable for all.