Indiana Roundabouts

Lincolnway, LaPorte Avenue and Sturdy Road roundabout, Valparaiso.

INDIANA DEPARTMENT OF TRANSPORTATION

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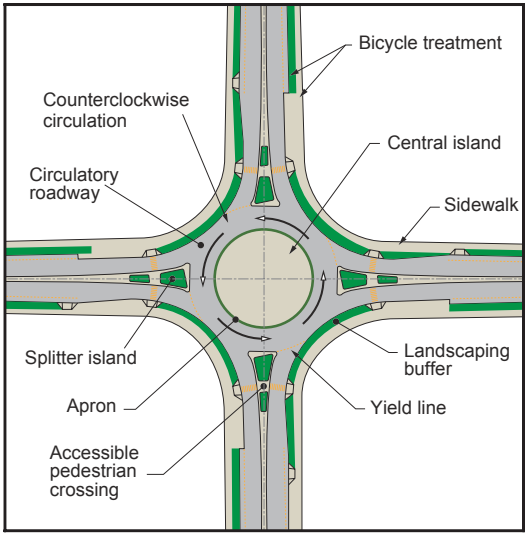
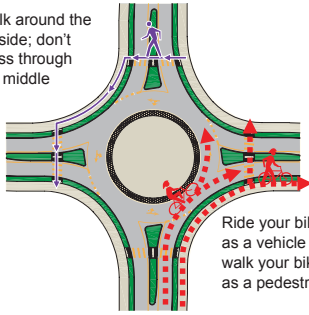
What Is a Roundabout?

A roundabout is a circular intersection or junction in which road traffic flows almost continuously in one direction around a central island.



Roundabouts are used extensively throughout the U.S. to reduce accidents, traffic delays, fuel consumption, air pollution and construction costs, while increasing capacity and enhancing intersection beauty. They have been successfully used to reduce congestion in residential neighborhoods and are regarded as one of the safest types of intersection designs.

Tips for safely walking and biking through a roundabout.



Roundabout Features

Yield-at-entry

- Traffic entering the circle yields to traffic already in the circle.

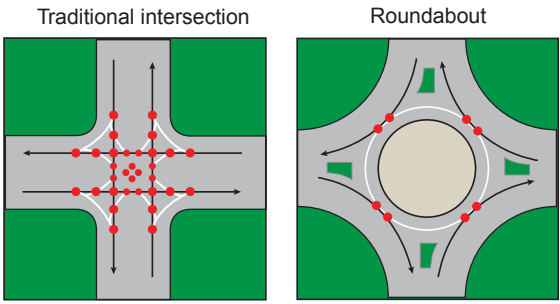
Traffic deflection

- Pavement markings and raised splitter islands direct traffic into a one-way counterclockwise flow.

Geometric curvature

- The radius of the circular road and the angles of entry are designed to slow the speed of vehicles.

With roundabouts, head-on and high-speed right angle collisions are virtually eliminated.



Potential vehicle conflict point

Because the only movement allowed upon entry or exit from a roundabout is a right turn, the occurrence of crashes that result in injury is substantially reduced. Small-angle collisions, the type of collisions that can occur as a result of a right-hand turn, are typically less severe than other types of collisions.

How to Drive a Roundabout

Approach

- Slow down and stay in your lane
- Yield to vehicles already in the roundabout
- Obey one-way signs at all times
- Yield to pedestrians and bicycles if there is a crosswalk

Enter

- Wait for traffic in the roundabout; it has the right-of-way
- When traffic clears, merge to the right and continue to stay in your lane

Proceed

- Continue through the roundabout until you reach your exit point. Avoid stopping in the roundabout

Exit

- Signal and exit to the right
- Left turns are completed by circling around the center island and then making a right turn to exit

Benefits of a Roundabout

Lives saved

- Roundabouts reduce the number of potential accident points within an intersection
- Up to a 90% reduction in fatalities
- 76% reduction in injury crashes
- 30-40% reduction in pedestrian crashes
- 75% fewer conflict points than four-way intersections

Slower vehicle speeds

- Drivers have more time to judge and react to other cars or pedestrians
- Advantageous to mature and novice drivers
- Reduces the severity of crashes
- Keeps pedestrians safer

Efficient traffic flow

- 30-50% increase in traffic capacity
- Improves traffic flow for intersections that handle a high number of left turns
- Reduces need for turn lanes

Money saved

- No signal equipment to install and repair
- Savings estimated at an average of $5,000 per year in electricity and maintenance costs
- Service life of a roundabout is 25 years (vs. the 10-year service life of signal equipment)

Community benefits

- Traffic calming
- Aesthetic landscaping
- Reduces congestion
- Reduces pollution and fuel use

Roundabouts vs. Traffic Signals

Advantages over traffic signals

- Less congestion
- Less frustration
- Less pollution
- Fewer and less severe traffic collisions
- Fewer driver, passenger and pedestrian injuries

Roundabouts can easily accommodate emergency and large-sized vehicles. Drivers should behave in the same manner as they would on any other road if an emergency vehicle approaches: carefully move as far right as possible and, if necessary, stop until the emergency vehicle passes.

Information provided by the U.S. Department of Transportation Federal Highway Administration and Insurance Institute for Highway Safety.

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