

Wisconsin Roundabouts Calm Traffic, Improve School Zone Safety

Location

Green Bay, Wisconsin
(Central United States)

Implementation Stage

- ✓ Planning
- ✓ Design
- ✓ Construction

Roundabout Type/Setting

Single and multi-lane roundabouts

Target Audience

- ✓ General Public
- ✓ Elected Officials
- ✓ School Officials

Strategies Employed

- ✓ Meetings with the public
- ✓ Field trips to the roundabout site
- ✓ An easily adaptable PowerPoint presentation
- ✓ A follow-on study comparing before and after statistics and conditions

**"People were expecting
European Vacation [the movie].
They had never seen what
we were talking about."**

– Cole Runge,
Brown County Planning
Commission



Background

In 1999, the intersection outside of a Green Bay, Wisconsin, metro area elementary and middle school complex located near a major highway had become a problem. As traffic volume on the adjacent highway grew, local officials became concerned about vehicle speed. The county sheriff got involved, and eventually the community decided to prohibit children from walking and biking to school out of concern for their safety. Plans to build a new high school on the same road were also underway, which exacerbated local residents' safety concerns.

Local Brown County officials had the option to expand the highway to four lanes to accommodate projected growth, adding turn lanes and traffic signals, but transportation planners and local residents feared this option would make the school zone less safe. The Brown County Planning Commission recommended constructing two simple roundabouts to calm traffic in and around the school zones and improve safety and access for pedestrians and bicyclists. But local residents, unclear about how a roundabout intersection would work, were vocal in their opposition. A concerted effort to obtain public support for these school zone roundabouts was needed.

Approach

Once transportation planners settled on roundabouts as the best option for enhancing the safety and traffic flow of the school zone, they approached the schools' administrators and the local school board to explain what they wanted to do, how a roundabout intersection would work, and why they believed it was the safest and best option. Planners addressed their concerns, answered their questions, and obtained their valuable support, which helped pave the way for a public announcement about the plan.

However, even with this support, local residents resisted this unfamiliar intersection alternative. It quickly became apparent that most of those who objected believed that roundabouts would increase congestion and possibly cause even more crashes, endangering students. There were also several objections based on weather concerns: Green Bay averages nearly 50 inches of snowfall per year, and many residents were concerned whether the roundabout could be maintained during severe winter weather.

To address the multitude of concerns and misunderstanding regarding roundabouts, transportation planning officials visited the elected bodies of the affected communities and held public meetings, inviting residents to come and voice their concerns. For these meetings, the County provided knowledgeable transportation planning and engineering representatives, who educated local residents about the dramatic safety benefits of roundabouts. They shared roundabout experiences from other locales, such as Vermont and Colorado, that have similar winter climates, which the residents accepted as relevant, "apples to apples," comparisons.

Planners also brought visual aids to explain the differences between roundabouts and traffic circles, which turned out to be extremely useful. By walking through the



Figure 1: Overhead view of the second Lineville Road roundabout, neighboring a local school complex (in lower left corner).

Lessons Learned

- Be prepared. Before approaching any individuals or groups, anticipate questions and concerns and have the information needed to address them.
- Don't reinvent the wheel. Roundabouts have been used more frequently in the last decade, and many localities have studied various safety aspects of roundabouts. There are a lot of statistics available from areas similar to those where roundabouts are being considered.
- Perseverance through educational outreach is important.
- Create an image of what the reconstructed intersection will look like without a roundabout. When people see pictures of a roundabout versus the multilane signalized intersection alternative to accommodate the same level of traffic, they often start to reconsider the value of a roundabout.

Learn More

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differences between roundabouts and traffic circles, the County succeeded in shifting public perception, and residents became supportive.

As the roundabouts began to take shape during construction, Green Bay planners shuttled groups of students and school officials to the construction site, allowing them to walk through the new intersections and discussing how they were going to work. The Planning Commission videotaped the "before" intersection and the "after" intersection and developed a video to be used for subsequent roundabout outreach in the State.

Results

Brown County's outreach efforts paid off: Since 1999, Brown County, the Wisconsin Department of Transportation, and the county's communities have built 26 roundabouts in the county, and the county and its partners plan to build at least 33 more within the next 6 years. While many people initially confused roundabouts with traffic circles, the concerted effort to educate the public and clarify key misunderstandings helped the county successfully gain public support. Targeting the school board and administrators whose schools were affected by the change, as well as local residents and elected officials, was gutsy but effective. Once construction was completed, the increased safety results spoke for themselves.

A follow-up study conducted in 2001 showed that at one of the roundabout locations, the number of vehicles entering the intersection increased from 5,600 per day in 1998 before the roundabout construction to 10,800 per day in 2001, and yet crashes and injuries decreased significantly, from an average of three crashes and five injuries per year during the 1996-1998 period to no reported crashes between August 1999 and October 2001.

The sheriff's department was so pleased with the safety improvements and speed calming effects from the roundabouts that, in 2000, the previous prohibition policy was reversed, allowing students to walk and bike to school.

Outreach Investment

The cost of the outreach effort, relative to the cost of implementing the roundabouts, was very low. There was a small investment in slides and staff labor for presentations, but aside from labor, there were very few additional investments.

Related Products

General Information Website

"Roundabouts and Traffic Calming,"

<https://www.browncountywi.gov/departments/planning-and-land-services/planning/roundabouts-and-traffic-calming/>

Presentation

"Pedestrian Safety at Roundabouts Presentation for Howard-Suamico School Board,"

[http://www.public.applications.co.brown.wi.us/Plan/PlanningFolder/transpotation/Pedestrian%20safety%20at%20roundabouts%20presentation%20\(Brown%20County%20Planning%20Commission\)%20-%20November%2026%20%202007.pdf](http://www.public.applications.co.brown.wi.us/Plan/PlanningFolder/transpotation/Pedestrian%20safety%20at%20roundabouts%20presentation%20(Brown%20County%20Planning%20Commission)%20-%20November%2026%20%202007.pdf)

Video

Lineville Road Roundabout Footage

http://www.public.applications.co.brown.wi.us/Plan/PlanningFolder/Video/Roundabout/Roundabout_All.WMv

Study

Lineville Road Roundabout Study

https://www.browncountywi.gov/i/f/export/file/lineville_roundabout_study.pdf