Running head: EDUCATING COMMUNITY ABOUT ROUNDABOUTS

Can Roundabouts Make A Difference?

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Abstract

Education is a necessary part of the process when a roundabout is being planned for a community. The community will resist the implementation because they do not understand the benefits and the fear of the unknown. Roundabouts save lives, reduce pollution, shorten delays, have artistic value, and save money. Roundabouts can be used to assist communities with traffic flow and meet other varieties of needs if the public gives them a chance.

**Outline**

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| **Claim:** | There is plenty of information available to change the minds of the public when it comes to roundabouts. Educating the public about roundabouts is essential to getting them to decide in favor of them in their community. When the facts are presented, roundabouts are a great option as a tool for regulating traffic flow. Roundabouts can have a positive effect on a community. |
| **Data:** | Roundabouts need community support to be included as part of the planning in the future of a community. When the public is not educated, roundabouts fail at the city committee level since the public comes out against them. Why do they fail? People are not used to them and feel that they are a problem for foot traffic. What are some of the ways they help the community? Roundabouts save lives, reduce pollution, shorten delays, have artistic value, and save money. |
| **Warrant:** | Roundabouts can be used to assist communities with traffic flow and meet other varieties of needs if the public gives them a chance. |
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CAN ROUNDABOUTS MAKE A DIFFERENCE?

Details Concerning Roundabouts

1 There is plenty of information available to change the minds of the public when it comes to roundabouts. Educating the public about roundabouts is essential to getting them to decide in favor of them in their community. When the facts are presented, roundabouts are a great option as a tool for regulating traffic flow. Roundabouts can have a positive effect on a community.

2 Roundabouts need community support to be included as part of the planning in the future of a community. The architects of our cities need to help us embrace necessary changes as the world expands around us and shapes our environment (Livingston, 2005). When the public is not educated, roundabouts fail at the city committee level since the public comes out against them. There are many examples of this. The following comments came from a Brookfield, Wisconsin Council meeting:

Schultz, whose 4th District is where the roundabout would be built, said the vote would indicate what kind of leadership there was on the council, leaders who based their votes on the “facts” or those who based decisions on “fear and misinformation.”(Johnson, 2002)

People are afraid of change or things that they do not understand. In the minutes of the Green Bay Improvement and Service Committee meeting of February 24, 2009, roundabouts are mentioned. Alderman Theisen states, “We need to make decisions based on sound engineering and not emotions and fear” (Green Bay City Council, 2009).

The Wisconsin Department of Transportation Roundabout Guide mentions that:

The success or failure of a project can often be attributed to how well the Department included the public in its development. This can be particularly true when introducing the modern roundabout because of its confusion with past circular intersections.(Wisconsin Department of Transportation, 2008, p. 11.26.15)

Many communities are currently struggling with increased traffic and safety issues and are looking to roundabouts as a possible solution.

3 How do you get the information out there? The Wisconsin Department of Transportation, knowing how important education is to a successful implementation of roundabouts, has put together brochures, videos, and simulation software for this purpose. They can give presentations at public forums to help people understand how roundabouts work and what makes each particular intersection feasible for a roundabout (Wisconsin Department of Transportation, 2008, p. 11.26.15). There is also plenty of information available on the internet at www.dot.wisconsin.gov.

4 What is a roundabout? According to:

Roundabouts: An Informational Guide, “roundabouts are circular intersections with specific design and traffic control features. These features include yield control of all entering traffic, channelized approaches, and appropriate geometric curvature to ensure that travel speeds on the circulatory roadway are typically less than 50 km/h (about 25 mph)”.(Long, Guth, Ashmead, Emerson, & Ponchillia, October 2005)

Traffic moves in a counter clockwise direction. Figure 1 shows traffic flow and crosswalks. Yield signs are typically posted near the entrance to reinforce the idea that those vehicles currently navigating the circle have the right of way. Some other significant features:

Roundabouts have splitter islands on each approach. These islands, shaped like elongated triangles and made of concrete or painted on the roadway, separate the entry and exit lanes of a street. Crosswalks usually cut through splitter islands at the street level. Splitter islands help to slow down traffic as it enters and exits the roundabout by deflecting it from a straight-line course. They also provide a pedestrian refuge midway through a street crossing.(Long, et al., October 2005)

The roundabout has many advantages over the current signal controlled intersections currently in use.

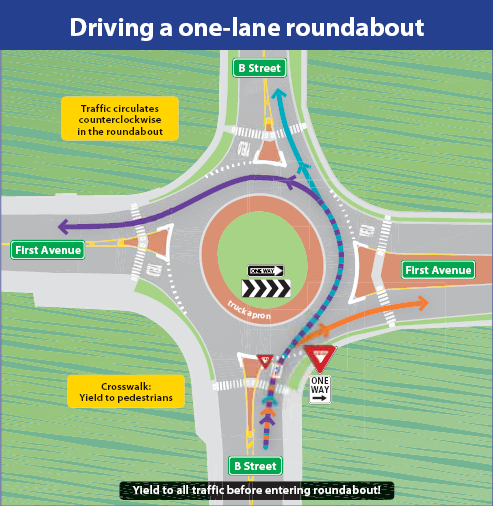


Figure 1. Roundabout with crosswalks

Note. From Wisconsin Department of Transportation. (2009, March). Rules for driving roundabouts. Retrieved July 03, 2009, from http://www.dot.wisconsin.gov/projects/us41expansion/docs/ho-rabmanualpimmar32009.pdf

5 Safety is a major concern for traffic controllers. “Richard Retting, senior transportation engineer at the Insurance Institute for Highway Safety, said most of the studies show roundabouts can reduce accidents by at least half” (Slevin, 1999). Data shows that roundabouts reduce the number of severe injuries versus traditional intersections (Long, et al., October 2005). Since the design of the roundabout causes traffic to slow, vehicles are traveling at slower speeds if an accident takes place. Another life saving characteristic is the angle of the vehicles at the time of impact. The angle is important because it is rare to have a head on collision or a life threatening broadside accident with the use of a roundabout. Roundabouts also make it real obvious to all drivers who has the right of way versus other types of intersections (Wisconsin Department of Transportation, 2008).

6 When considering roundabouts as an alternative to traditional intersections using traffic control lights, cost is part of the equation. Roundabouts offer many cost benefits:

Since vehicles approaching a roundabout do not have to stop due to the fact that they are controlled using yield signs, there is also a reduction in delays and unwarranted stops. The potentially continuous flow of vehicles across intersections via a roundabout translates into a reduction in both gas consumption and tailpipe emissions – hence environmental benefits. Traffic signals might run over a full 24-hour period even when their use is not warranted, but roundabouts, due to the way conflicts are managed, allow delays to be reduced at all periods of the day.( Nétu, 2009, p. 23)

The mayor from Caramel, a suburb of Indianapolis, told Brown County residents and government employees that stoplights cost $150,000 each. By installing roundabouts they save on electricity and stoplight costs. He also estimated that 150,000 gallons of fuel is saved on their six roundabouts each year (Walter, 2009). The reduced number of severe accidents also reduces costs. Environmental costs are very difficult to measure but still beg for consideration. All of the costs need to be considered when replacing a controlled intersection with a roundabout. According to the Wisconsin Department of Transportation, these costs include construction cost, maintenance cost, delay cost, engineering cost, and crash cost (Wisconsin Department of Transportation, 2008).

7 Roundabouts can have a profound effect on the community aesthetic value. The center island of a roundabout can put to artistic use. They can be landscaped to include whatever the community desires. The roundabouts can also be designed with brick, stone, pavement, or any other material to enhance the look. Stoplights and poles can be eliminated to clear the landscape of undesired images. Since roundabouts reduce idling, quick starts, and encourage lower speeds, noise and air pollution are also lowered (Wisconsin Department of Transportation, 2008).

8 Another major reason to put in a roundabout is traffic flow, since it can reduce delays. Major accidents can close major intersections and cause delays. Roundabouts reduce the number and the seriousness of collisions so the flow of traffic has reduced interruptions. When the power goes out, roundabouts are still functional due to the way they are designed. They rely on yield signs. There is no more waiting for a traffic light in the middle of the night when no one is around.

9 Many communities, when challenging the installation of roundabouts, threaten to sue or bring up the issue of accessibility for pedestrians. Many use the concern over pedestrian traffic to block construction. Many advances have been made in this area. “Planners researched how to make roundabouts compliant with the Americans with Disabilities Act1 and, Hansen said, believed light signals, sound strips, raised crosswalks and other safety improvements could create a safe crossing for pedestrians” (Block, 2009). Accessibility for trucks is also a concern for some. The center part of the roundabout includes an apron for truck traffic by design. This should alleviate any issues for larger vehicles.

10 Roundabouts can be used to assist communities with traffic flow and meet other varieties of needs, if the public gives them a chance. History has shown that getting the first roundabout into a community can be the hardest. Once they are exposed to it and take advantage of the benefits it offers, many communities build many more. The town of Howard has five roundabouts on Lineville Road alone. Many in the community were against them at first. Many more intersections have been replaced with roundabouts and more are planned. During this budget conscious time, many communities are looking for ways to save money, make their community safer, and resolve traffic flow problems. Roundabouts could be the answer. With a little bit of education and planning it can happen.

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I give Mr. Rizzo permission to read in class or print for the class my paper.

Signed\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Author Note

Taking an inventory of the communities around Green Bay, many are planning construction of roundabouts. The Military Avenue project to replace six intersections with roundabouts was defeated by the Green Bay city council. The Town of Howard has had roundabouts for quite some time now. They were tough to get used to, but they have done the job they were designed to do. This community can and should be used as a model.

Footnotes

1ADA stands for the Americans with Disabilities Act. This was passed in 1990. In this instance, it is a requirement to make roundabout navigation possible for pedestrians who have disabilities.