



Business Access and Economic Benefits Provided by Roundabouts

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Roundabouts: Friend or Foe?

Do drivers go out of their way to avoid roundabouts, thereby decreasing traffic on those routes and potentially having a negative effect on nearby businesses? Or do roundabouts attract vehicles because they reduce crashes, delays and congestion?

Projects that include a proposed roundabout at an intersection that serves businesses are often viewed with suspicion because it is suspected, without basis, that drivers will avoid the intersection, and therefore the businesses, because of the roundabout.

The reality is that roundabouts attract traffic due to the superior operations when compared to congested intersections. Substantial amounts of literature, case studies and operating examples illustrate the proven ability of roundabouts to move traffic efficiently, prevent congestion and provide excellent business access solutions.

Proven Results

Roundabouts have consistently proven their ability to move traffic more efficiently, and remove "bottlenecks," facilitating improved access, vitality, growth and viability for both convenience- and destination-type commercial and retail businesses.

Good Traffic Flow = Good Business

It is widely documented that businesses and business areas that have good vehicular and pedestrian traffic flows will prosper and grow. A business can only thrive when it can offer good access to customers. When proposals are introduced to replace signalized intersections with roundabouts, concerns naturally arise about the effects the new type of intersection may have on adjacent businesses and their customers.

Increased Popularity in U.S.

Although globally constructed and researched since the 1940s, modern roundabout intersections are a relatively new form of intersection control on U.S. roadways. Traffic engineers, like the public today, were initially skeptical of their use. The question of whether these different looking intersections could have the same operational advantages of a signal or stop sign control device was examined. In the past 25 years, a plethora of evidence has surfaced in support of



STH 78 and 92 Roundabout, Mt. Horeb, WI

the operational benefits of roundabouts, and they are now becoming more accepted within the traffic engineering field. Not only are these intersections safer for motorists and pedestrians, they also decrease driver delays.

Mount Horeb, WI

In 2004, the first modern roundabout on a Wisconsin highway was constructed at the intersection of STH 78 and STH 92 in Mount Horeb. Located next to a Kwik Trip gas and convenience store, the project was initially met with natural and expected skepticism by the community. After the village learned about the benefits offered by the roundabout, the installation was approved.

Not everyone in the community was initially in favor of this project. As is common with similar projects, the significant concern and apprehension that was present before construction was greatly alleviated by the project's completion.

Operational surveys conducted after the construction phase showed an acceptance rate of 75-90 percent. In fact, the citizens thought so highly of the improvement that the village installed four additional roundabouts along the same route to facilitate growth and improve access to new and existing businesses. These subsequent roundabouts service businesses of all kinds, including fast food, convenience stores, grocery stores, and banks. And in all cases, the roundabouts facilitate business access rather than hinder it.



Common Misconceptions About Roundabouts

Business owners make a substantial investment to open and maintain viable business operations – natural skepticism of perceived risk is expected.

MYTH:
Drivers will avoid the roundabout, thereby reducing traffic volume and business activity.

MYTH:
Roundabouts prevent traffic from stopping, which decreases the impact of business signage.

MYTH:
Roundabouts will confuse potential customers, making them less likely to stop at a business.

FACT:
The reality is that **roundabouts process traffic efficiently** and this has a positive effect on traffic flow. Multiple research studies have shown that drivers will actively avoid commonly congested or unsafe intersections due to delays and associated lack of convenience.

FACT:
Roundabouts can improve visibility as all vehicles move at a slower, consistent speed. In addition, the removal of signal heads, posts, and unnecessary signing can improve the visibility of business signage.

FACT:
This perception is unfounded. In fact, **documented research indicates the opposite.** Results of a survey conducted by KTRAN¹ show the overall feeling of business owners about the roundabouts near their location to be positive.

¹ Survey results are included in "A Study of the Impact of Roundabouts On Traffic Flows and Business," Kansas Transportation Research and New Developments Program, Dec. 2011.

Roundabouts > Convenience > Increased Revenue



When intersection improvements are planned, the operational requirements of signalized intersections (storage lengths, speeds, etc.) require business access drives to be reduced, restricted and even removed. Roundabouts, on the other hand, provide significant flexibility for the spacing and location of business driveways without the safety and operations issues associated with the same access at signalized intersections.

Construction Period

During the construction period of an intersection improvement project, the relative convenience of a store may be impacted, but this issue is not exclusive to roundabout projects. Roundabouts do not require more time to construct or limit access any more during construction than signals.

Loss of revenue for a nearby business during intersection construction is a challenging issue that must be addressed to:

- minimize construction time,
- maintain business access,
- offset the adverse effects of the construction by adding advertising and way-finding signage.

Conclusion

Roundabouts offer significant flexibility in business and side street access that are not available with signalized intersections because of the associated queue length and higher speeds.



Elmwood Ave./Hermosa Street, Lindsay, CA

“Roundabouts did not decrease traffic flow or access. This is a ‘myth’ one could hear frequently in the early years of roundabouts, i.e., if a roundabout is built on a street, drivers will find another route to avoid the roundabout. There is and never was any real evidence to support this, including this study.”

- A Study of the Impact of Roundabouts On Traffic Flows and Business, KTran, Dec. 2011

Careful planning and coordination is required with the business community near a roundabout installation to lessen impacts during the construction period. This may include additional advertisements and signing as well as working to maintain a smooth and efficient construction schedule.

Roundabouts and Business: Case Studies



County ID and Perimeter Street

“The authors believe that improved traffic flow and access in a business area are good for business. Furthermore, that there is sufficient evidence to maintain that the proper use of well-designed roundabouts will improve traffic flow and access in business areas. The main benefits gained from the roundabouts are improved safety, higher traffic flows, lower accident rates, reduced travel time, pedestrian friendly and aesthetically good area.”

- A Study of the Impact of Roundabouts On Traffic Flows and Business, KTran, Dec. 2011



Kwik Trip before expansion - 2004

Mount Horeb, WI

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Kwik Trip after expansion - 2013

Convenience is a need state that is generated by people's busy lives. Consumers want convenient products in convenient locations. Shoppers want quality, availability, ease, speed and efficiency.¹ There are significant business advantages for convenience-type stores that are located at roundabouts versus using the traditional traffic signal.

¹ From a research report conducted by SRCG, a market leader in convenience retail strategy development

Roundabouts and Business: Case Studies



STH 18 and commercial access, Wales, WI



STH 16 and Walnut Street, Oconomowoc, WI



Rocky Mountain Boulevard and Fox Trail Drive, Loveland, CO



US 23 and Lee Road, Brighton, MI



STH 54 and Second Street, Wisconsin Rapids, WI



STH 42 and Vanguard Drive, Sheboygan, WI