



ROUNABOUTS

WHAT IS THE COUNTERMEASURE?

There are an estimated 300,000 signalized intersections in the United States. About one-third of all intersection fatalities occur at these locations, resulting in roughly 2,300 people killed each year. Furthermore, about 700 people are killed annually in red-light running collisions. Although traffic signals can work well for alternately assigning the right-of-way to different user movements across an intersection, roundabouts have demonstrated substantial safety and operational benefits compared to most other intersection forms and controls, with significant reductions in fatal and injury crashes.

Proven Fact: By converting from a two-way stop control mechanism to a roundabout, a location can experience an 82 percent reduction in severe (injury/fatal) crashes and a 44 percent reduction in overall crashes. By converting from a signalized intersection to a roundabout, a location can experience a 78 percent reduction in severe (injury/fatal) crashes and a 48 percent reduction in overall crashes. For more information, see *Roundabouts: An Informational Guide*, Second Edition (NCHRP Report 672), http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_672.pdf.



Figure 1. State Route 101 and Milpas, Santa Barbara, CA

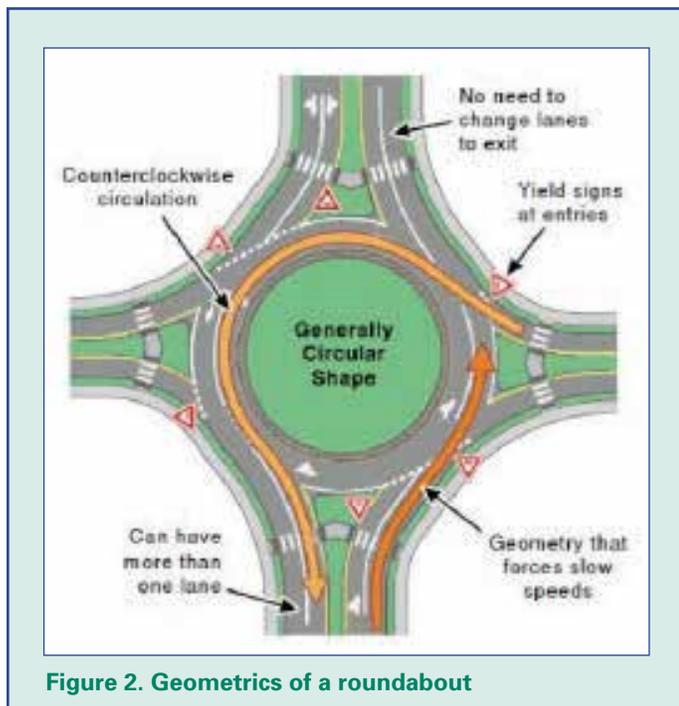


Figure 2. Geometrics of a roundabout



Figure 3. La Jolla Boulevard, La Jolla, CA

WHAT HAVE WE DONE SO FAR?

Caltrans, with the assistance of the FHWA Headquarter, Resource Center and Division Office, has implemented a systemic strategy, Intersection Control Evaluation (ICE) policy, to provide a relatively simple process that supports utilization of innovative solutions (e.g. roundabouts) that can offer a safer and more sustainable intersection control.

WHERE DO WE WANT TO GO? – SUCCESSFUL PRACTICES, LESSONS LEARNED, POINTERS FOR IMPLEMENTATION

The FHWA California Division with support of FHWA Resource Center is participating in Caltrans' Technical Advisory Committee offering assistance to Caltrans Districts and local agencies on public awareness, design, and construction of roundabouts.

Application of Caltrans' policy is focused on the state system, however, it was developed with the local transportation system in mind as state highways do impact the local system. Evaluation of the benefits of the policy continues.

Stakeholder (management, legal, public, etc.) understanding of the benefits derived from unusual/innovative solutions is key to implementation. Working with national level expertise and resources was critical in developing the process framework and eventually implementing the process. Marketing among users (general public, truck drivers, emergency responders, etc.) and key partners (politicians, mayors, city engineers, supervisors, etc.) is essential.