

Roundabouts: Maryland Experience



A Maryland Success Story



U.S. Department of Transportation
Federal Highway Administration

FHWA-SA-09-018



Safe Roads for a Safer Future
Investment in roadway safety saves lives

The Challenge

- In 2008, in the United States, 733,000 injury crashes and 7,196 fatal crashes, occurred at intersections¹.
 - It is estimated that more than 70% of the fatal crashes occur at stop-controlled intersections.
- Maryland State Highway Administration (MDSHA) sought to reduce the number and severity of crashes at rural, two-way, stop-controlled intersections while maintaining capacity and cutting down on costs.

1. 2008 Traffic Safety Facts Annual FARS, National Highway Traffic Safety Administration

Solution



Lisbon Roundabout



Leeds Roundabout

Conversion to Roundabouts:

- Cearfoss Roundabout, Washington County, MD
- Lisbon Roundabout, Howard County, MD
- Lothian Roundabout, Anne Arundel County, MD
- Taneytown Roundabout, Carroll County, MD
- Leeds Roundabout, Cecil County, MD

Technical Data

- Location:
 - 5 high crash locations in Maryland
- Speed Limits:
 - Ranged from 25 mph to 50 mph
- Implementation Cost:
 - \$194,000 – \$500,000
- Implementation Time:
 - 6 to 9 months
- Implementation Issues:
 - Maryland experienced no implementation issues with these countermeasures

Results at Treated Intersections



- **Crash Reductions:**
 - 100% reduction in fatal crashes per year
 - 88.0% reduction in injury crashes per year
 - 69.1% reduction in total crashes per year

For More Information

- Visit FHWA's intersection safety web site to download this and other case studies highlighting proven intersection safety treatments from across the country:

<http://safety.fhwa.dot.gov/intersection>

- Or Contact:

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Roundabout Backup Slides

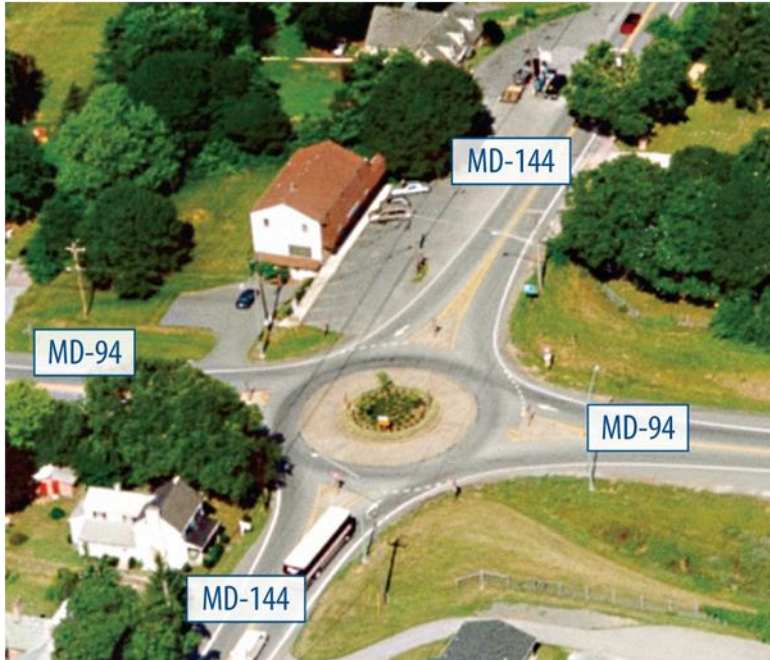
Cearfoss Roundabout, Washington County



- Crash reduction of 76.5 percent.
- Reduced injury crashes by 93.8 percent per year.
- Fatal crashes were eliminated.



Lisbon Roundabout, Howard County



- Crash reduction of 84 percent
- Reduced injury crashes by 92.2 percent per year.
- No fatal crashes have occurred.

Lothian Roundabout, Anne Arundel County



- Crash reduction of 49.6percent
- Reduced injury crashes by 79.2 percent per year.
- Fatal crashes were eliminated.

Taneytown Roundabout, Carroll County



- Crash reduction of 82.1 percent
- Reduced injury crashes by 89.3 percent per year.
- No fatal crashes have occurred.

Leeds Roundabout, Cecil County



- Crash reduction of 46.8 percent
- Reduced injury crashes by 93.1 percent per year.
- No fatal crashes have occurred.