

Key Roundabout Advantages – Better use of Intersection Space and Time

- **Safety**
- **Delay**
- **Emissions**
- **Fuel Savings**
- **Aesthetics**
- **Life Cycle Costs**



Safety Performance

- **90-100% reduction in fatalities**
- **80% reduction in injuries**
- **35-50% reduction in total crashes**

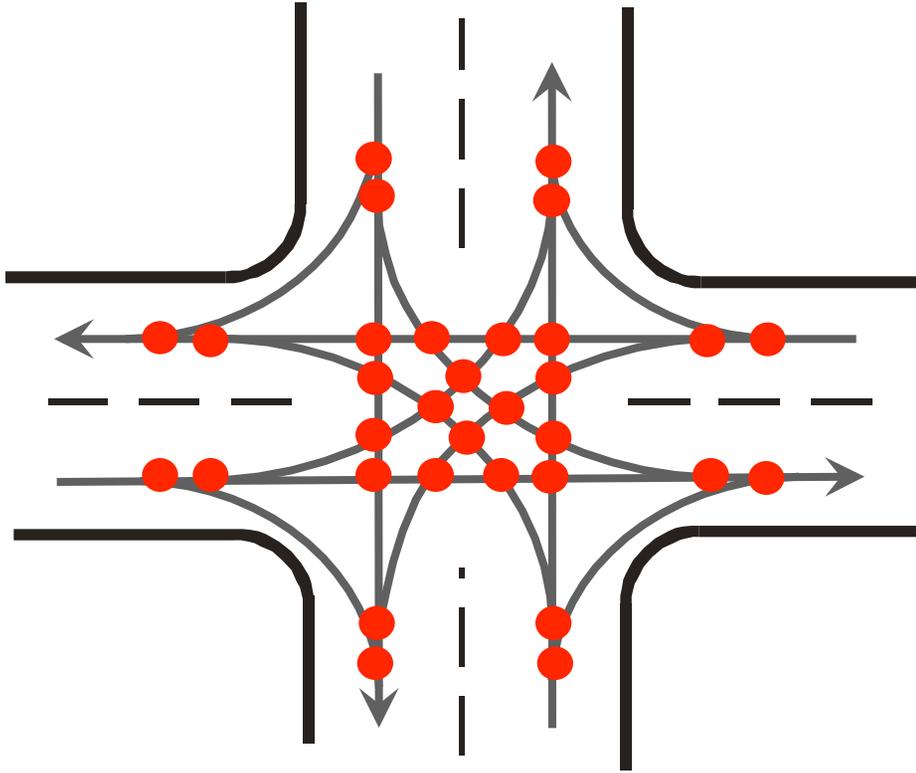


Photo: Lee Rodegerdts



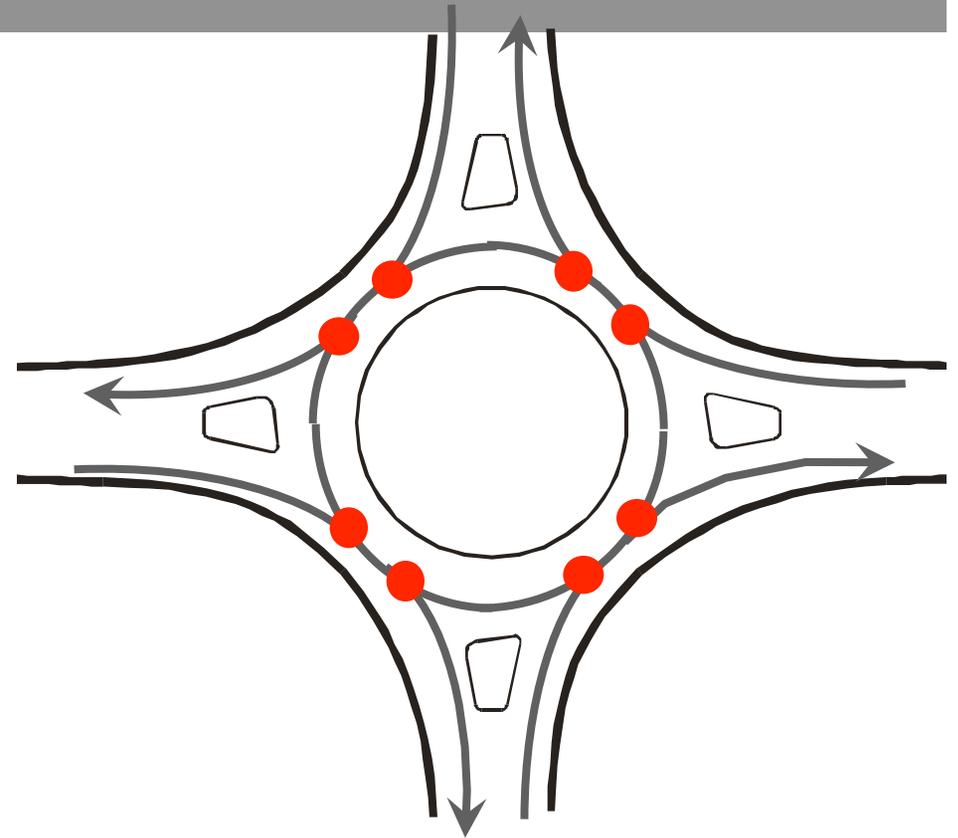
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Vehicle Conflict Points: REDUCED



32 conflict points

- High-speed
- Angle Crashes
- **High Impact**



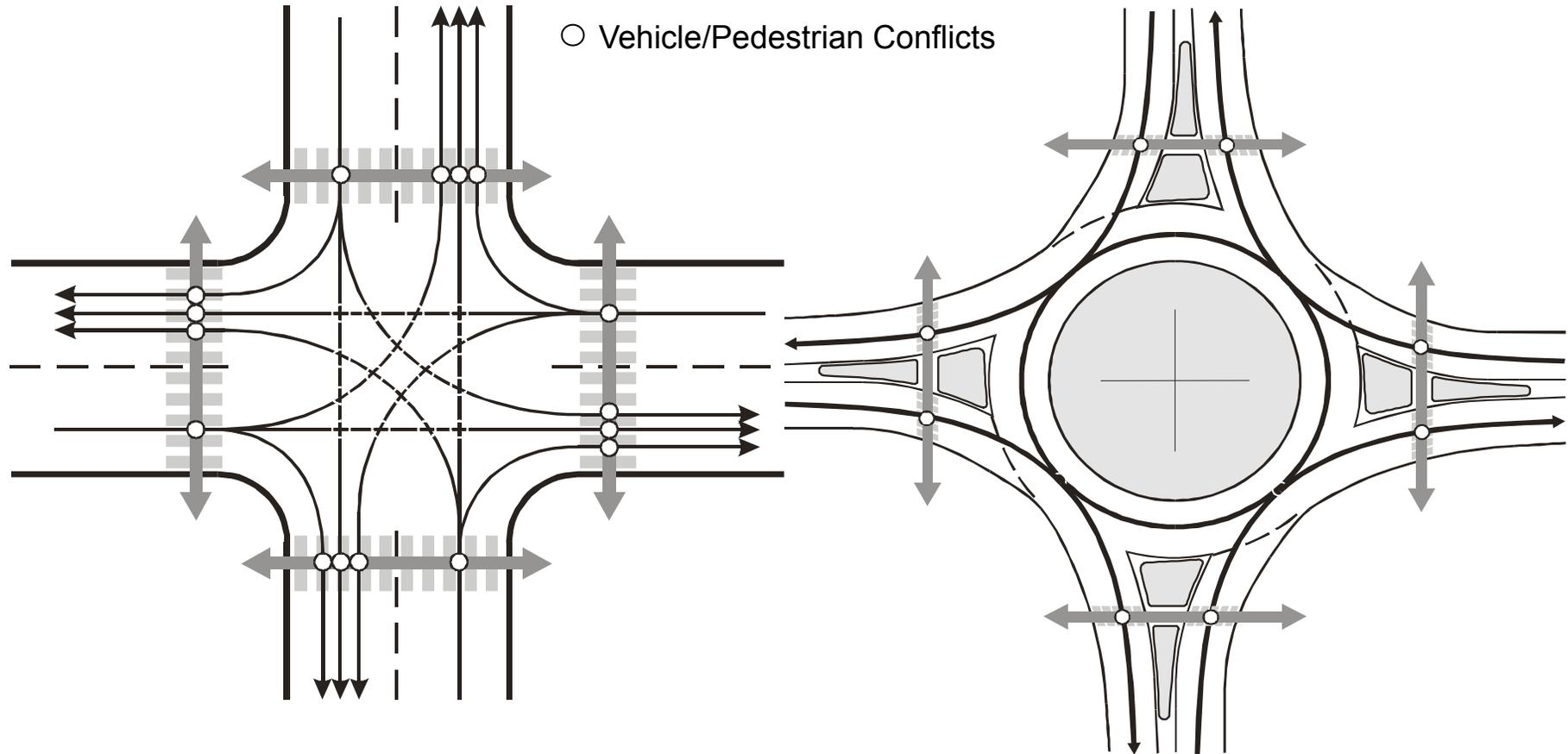
8 conflict points

- Low-speed
- Non-angle Crashes
- **Low Impact**



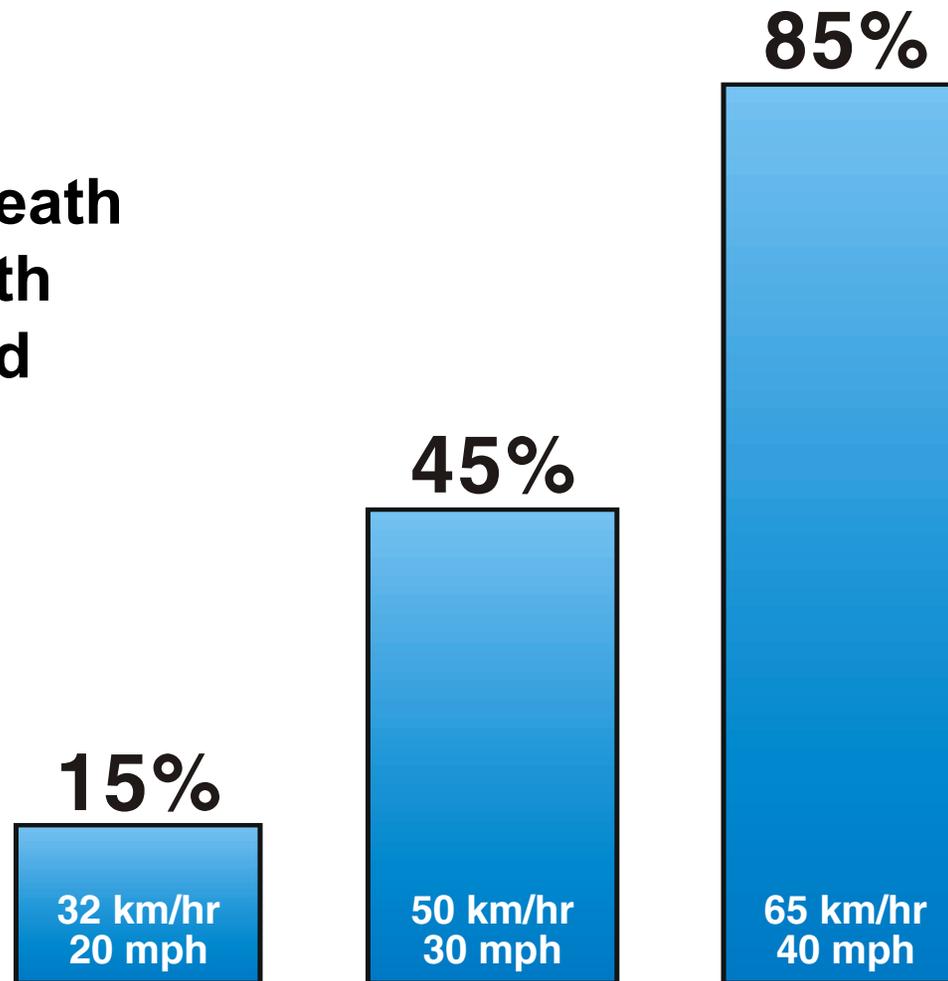
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Pedestrian Conflict Points: REDUCED



Lower speed is safer for pedestrians

Chance of pedestrian death increases with vehicle speed



Roundabouts Save Fuel & Reduce Emissions

- **Reduce fuel consumption by about 30%**
- **Reduce emissions by 20-40%**
- **Limited or no stopping/idling during off-peak periods**



Aesthetics

- **Central island creates landscaping opportunity for aesthetic enhancement**



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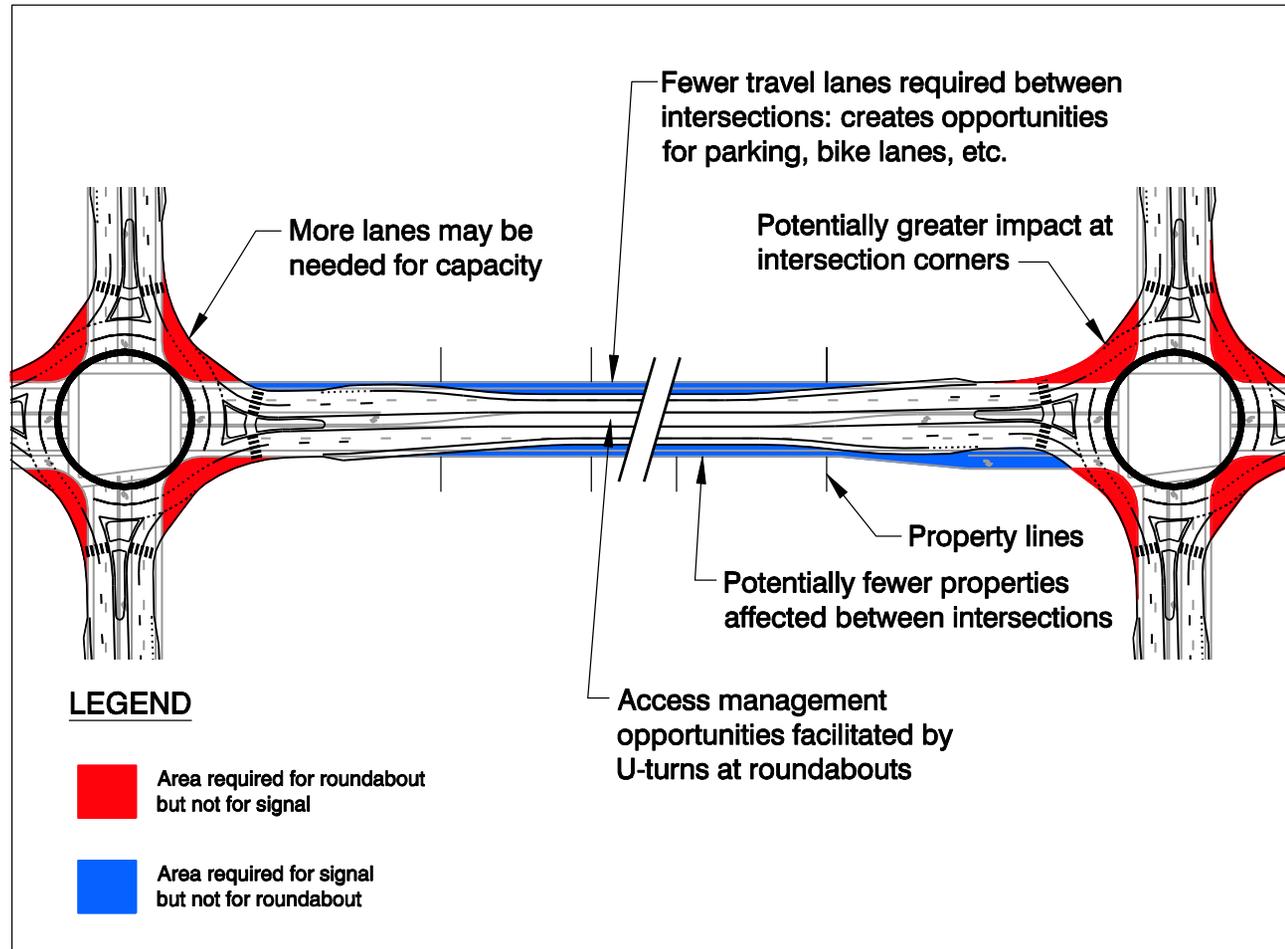
Traffic Operations

- **Peak Period Operations (2-4 hours per day)**
 - Comparable delays, reduced queuing compared to other intersection control forms
- **Off-Peak Periods (20-22 hours per day)**
 - Little or no delay compared to other intersection control forms



Wide Nodes, Narrow Roads

- **Reduced property impacts away from intersection**



Life Cycle Costs

- **No traffic signal hardware or equipment maintenance**
- **No power to operate traffic signal 24/7 365 days a year**



Questions?



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