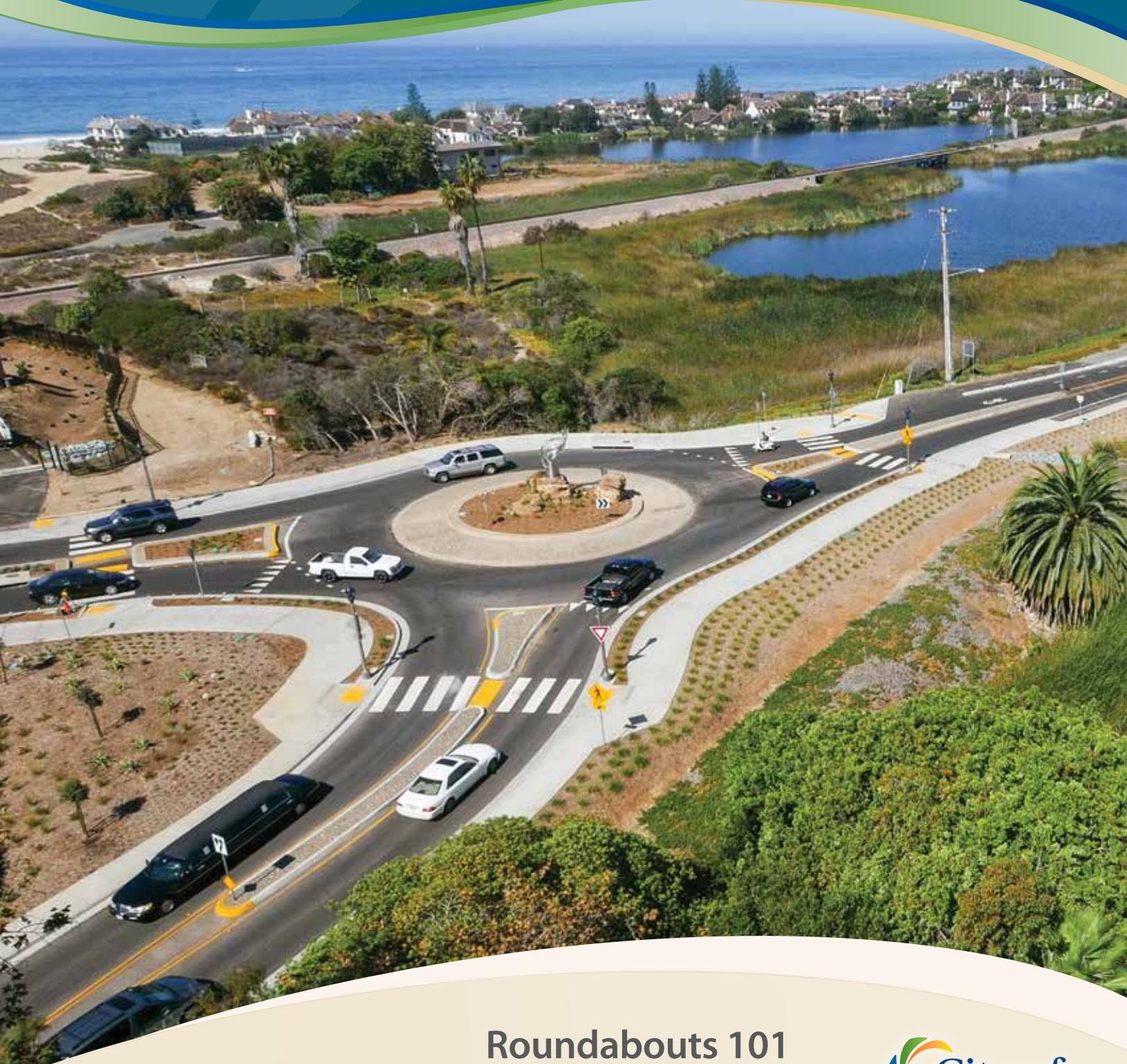


Understanding *Modern Roundabouts*



Roundabouts 101

Think you know about roundabouts? They're making a comeback as communities start to realize the benefits of keeping traffic moving at a steady pace while reducing opportunities for collisions. Learn more inside.



Why Roundabouts

Cities are increasingly using roundabouts instead of stop signs and traffic signals to manage traffic on local roads. Why? Today's roundabouts have a number of advantages.



Improve safety



Improve traffic flow



Reduce delays



Reduce air pollution



Save money



Beautify communities



Improving Traffic

- Studies show that when roundabouts replace stop signs and signals, traffic delays go down at least 20 percent.
- Roundabouts move traffic through an intersection more quickly and with less congestion on approaching roads.
- Unlike signalized intersections, drivers don't have to wait for a green light at a roundabout to get through the intersection.
- Traffic is not required to stop – only yield – so the intersection can handle more traffic in the same amount of time.

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Safety First

Studies by the Insurance Institute for Highway Safety and the Federal Highway Administration have shown that when replacing stop signs or signals roundabouts typically achieve:

- 37% reduction in overall collisions
- 75% reduction in injury collisions
- 90% reduction in fatality collisions
- 40% reduction in pedestrian collisions.

Fewer conflict points

Typical signalized intersections have 32 locations that could lead to an accident, compared to roundabouts that have only eight locations. Pedestrians only have to cross one direction of traffic at a time and the crosswalk lengths are much shorter.

No 'light to beat'

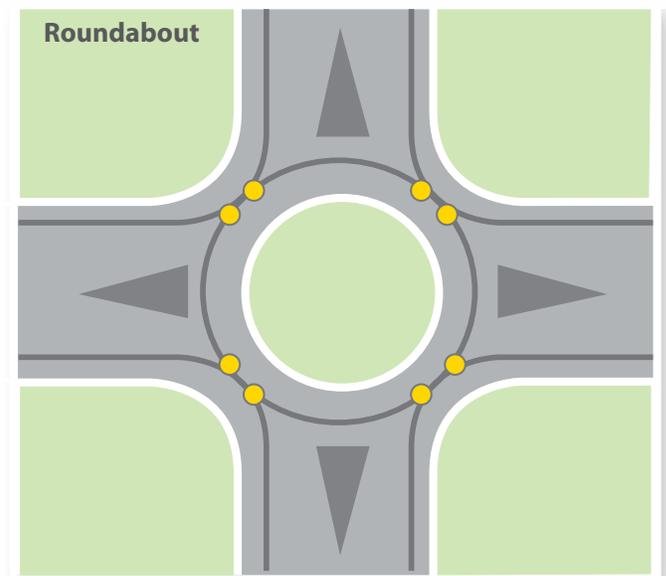
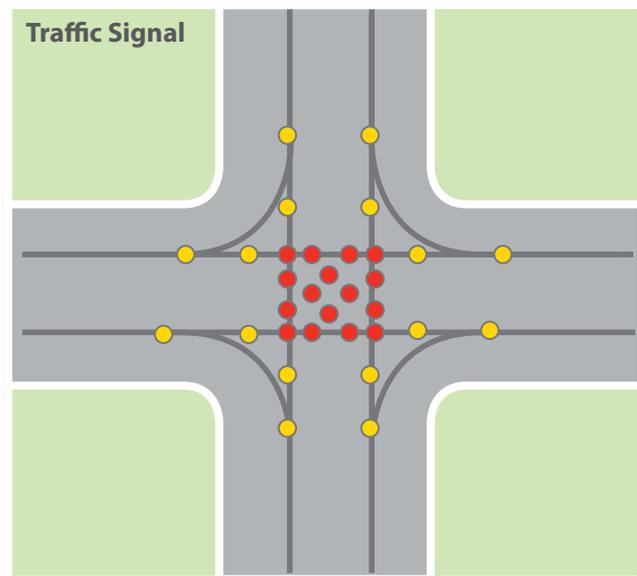
Roundabouts are designed to promote a continuous, circular flow of traffic. Drivers yield to traffic before entering a roundabout; if there is no traffic in the roundabout, drivers are not required to stop. Because traffic is constantly flowing through the intersection, drivers don't have the incentive to speed up to try and "beat the light," like they might at a traditional intersection.

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Low travel speeds reduce severity of collisions

Drivers must slow down and yield to traffic before entering a roundabout. Speeds in a roundabout are typically between 15 and 20 miles per hour. The curved roads and one-way travel around the roundabout eliminate the possibility for T-bone and head-on collisions. The few collisions that do occur at these lower speeds are typically minor and cause few serious injuries.

Likelihood & Severity of Collisions



● Serious Collision
"T-bone" crash
Head on crash

● Moderate Collision
Sideswipe crash
Rear end crash

Roundabouts Can Save Money

When long-term costs are considered, roundabouts eliminate hardware, maintenance and electrical costs associated with traffic signals, which can cost between \$5,000 and \$10,000 a year.

Art & Landscaping

Roundabouts provide an opportunity to beautify a community through artwork and landscaping. These features do double duty – they help give an area character, and they help ensure drivers maintain speeds appropriate to the surroundings.



Breathe Easy

Cars in roundabouts emit remarkably fewer pollutants than cars in intersections.

- A Kansas State University study showed that, on average, carbon monoxide emissions decreased by 33 percent; carbon dioxide (which accounts for the largest percentage of America's pollution) was reduced by 46 percent.
- Other gasses found to negatively impact the environment (nitrogen oxide, and hydrocarbons) were cut by one-third to one-half.
- Why? With roundabouts, vehicles are rarely idling.
- Even during rush hour, cars are still less polluting than intersections with traffic signals, which almost always have a queue of cars idling at any given moment.
- At most times of the day, roundabouts keep cars in constant motion, and eliminate the need to come to a full stop.
- This further contributes to less noise pollution, and less brake pad waste.

Even during rush hour, **cars are still less polluting** than intersections with traffic signals, which almost always have a queue of cars idling at any given moment.



Power Outages

Roundabouts are more effective during power outages. Unlike intersections with traffic signals, which must be treated as a four-way stop or require police to direct traffic, roundabouts continue to work normally.