



Benefits of a Roundabout

Roundabouts are used in many large cities and highways and have become more widely used in smaller cities. Roundabouts are one of the safest and most effective traffic control treatments in use today. They force drivers to travel in one direction around a landscaped center island using yield signs and one-way arrows, but not stop signs. Roundabouts not only are attractive, they play an important role in making communities safer. Some of the benefits of a roundabout are listed below:

- Approaching a roundabout, traffic is required to slow down.
- They limit vehicle speed because drivers are not able to travel at a fast speed in a roundabout.
- They eliminate the need for stop signs at confusing and dangerous intersections like North Sequim Avenue and Old Olympic Hwy, where many accidents have occurred.
- Roundabouts are safer than intersections with stop signs or traffic signals. When cars enter a roundabout, there is only one way to look, and one way to travel. Vehicles slow down, and decision-making is simplified.
- Even in high-traffic areas, roundabouts work, reducing fatal accidents by as much as 75 percent.
- Motorists will experience less delay at the intersection.
- The current four-way stop forces mandatory stops all hours of the day, even when there may be little traffic using the intersection.
- Emissions will be reduced since the number of cars in the backup will be minimal.
- Makes for an attractive and calming entrance into the city.



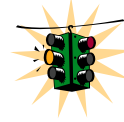
The City of Sammamish recently reported the following information.

Why a roundabout instead of a standard signalized intersection?

In the United States, modern roundabouts have achieved a 50% to 90% reduction in injury accidents compared with intersections using stop control or traffic signals.

The most comprehensive survey of roundabout safety in the United States, carried out in 1997 by the Transportation Research Board, found that overall

crashes were reduced by 37% and injury accidents by 51% at intersections which were retrofitted with roundabouts. The study also broke the results down for large roundabouts with three-lane entries, and smaller roundabouts with one- or two-lane entries. At these smaller roundabouts, crash reductions were even more pronounced: total crashes fell by 51%, with injury crashes reduced by 73%.



This reduction in crashes occurs for several reasons:

- The number of possible conflict points between vehicles decreases from 32 at a four-way intersection, to eight at a roundabout. By reducing the number of conflict points, roundabouts also reduce the number of collisions.
- Vehicle speeds at roundabouts are much lower, generally less than 25 mph. Lower speeds mean shorter braking distances and longer decision-making time. Therefore, even if someone makes a mistake a collision is easier to avoid.
- Decision-making is simplified. A driver about to enter has one decision: "Is there a vehicle circulating in the roundabout and blocking my path?" If not, the driver enters. If there is, the driver waits for a gap.
- If a collision does occur at a roundabout, the force of impact is much lower due to the lower speed and the low angle of impact. No one can "run the red" and cause a right angle collision. Nor can a left-turning driver make a mistake in selecting a gap in the approaching through traffic, with the resulting head-on or right angle crash.

The City also found that the roundabout was preferred over the signalized intersection for the following reasons:

- The average delay time for vehicles passing through the intersection would be cut in half.
- Noise at the intersection would be significantly reduced (far fewer starts from a dead stop).
- Reduced air pollution.
- Lower long-term costs.
- Aesthetically more pleasing.