

Puget Sound Gateway Program **SR 167 Completion Project**

All about roundabouts

The Wapato Way roundabout helps solve several traffic challenges

WSDOT listened to the needs of our partners and the community as solutions for the Wapato Way intersection were developed. The roundabout solves several community needs:

- WSDOT wanted to reduce long wait times at the existing signalized intersection. Compared to other vehicles, large trucks take significantly longer to make a right or left turn at intersections, especially after coming to a complete stop. Due to the project’s proximity to the Port of Tacoma, high volumes of freight traffic stopping at the intersection contributed to long wait times. The roundabout has been highly effective at reducing these wait times.
- The cities of Fife and Milton both requested WSDOT slow traffic on SR 99 as this area experiences growth and development pressure. Roundabouts are effective at slowing speeds, and slower speeds improve safety for all vehicles and pedestrians.
- Roundabouts require much less maintenance than a typical signalized intersection, and no annual costs for operating and replacing signal components.

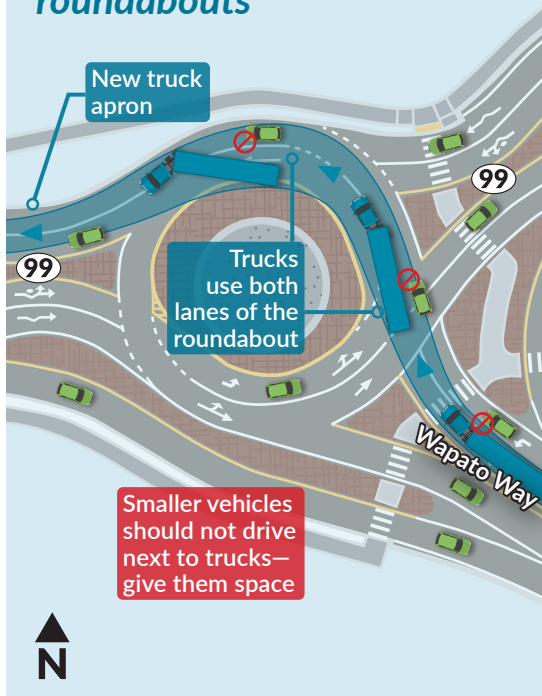
The Wapato Way roundabout encourages continuous flow of traffic because vehicles in roundabouts do not have to come to a complete stop—they only need to yield to traffic on the left. However, to keep traffic flowing, drivers must give trucks extra room to navigate efficiently through the roundabout.

When evaluating whether to install a roundabout, WSDOT collaborates with local agency partners and the community, and conducts thorough traffic analyses.



Before the Wapato Way roundabout, trucks would queue in long lines to cross I-5 over the 70th Avenue bridge.

Give trucks the space they need in roundabouts



Responding to driver behavior at SR 99 and Wapato Way and planning for future roundabouts

Large trucks need to use both lanes to efficiently move through two-lane roundabouts. If they are not able to occupy both lanes, large trucks may get out of position as they enter the roundabout. To accommodate this, WSDOT has built an apron with a rolled curb to allow a truck’s wheels to ride onto the center island—providing them with extra space to turn without getting stuck, damaging landscaping, or other vehicles.

WSDOT will add another truck apron on the outside right lane on SR 99 to provide turning support for large trucks that find themselves out of position. This will give trucks more space to navigate the roundabout and prevent infrastructure damage by off-tracking trailer tires.

After studying driver behavior, WSDOT believes the greatest challenge at the Wapato Way roundabout is a lack of understanding about navigating the intersection with large trucks. For the roundabout to work as intended, drivers need to slow down and give trucks the space they need to drive through the roundabout. WSDOT will install larger signs and increase public education to help improve operations.

WSDOT’s plans for the Wapato Way roundabout include:

- Adding wider aprons to accommodate trucks that get out of position.
- Upgrading guide signs with improved driver directions.
- Increasing outreach to community members and local freight companies about how to share the road.

Why a roundabout instead of a traffic signal?

Before WSDOT builds a roundabout, we do a thorough study and analysis of options, including signals and roundabouts. We look at factors like land use, environmental concerns, and traffic volumes. We also conduct operational and safety performance analyses comparing options to the current intersection. We consider which design will provide the greatest performance today and in the future. When we build a roundabout, it is because we have looked at all of the different factors. Roundabouts improve safety, they're efficient and accessible, operate at a lower cost and improve traffic flow.

The SR 167 Completion Project will build roundabouts at three intersections:

- At Wapato Way and SR 99 (completed in 2021)
- At 54th Avenue East and the future SR 167 Expressway (complete by 2026)
- At Valley Avenue and the future SR 167 Expressway (complete by 2029)

Safer

Gentle curves in the roads entering roundabouts direct drivers into the intersection and help them travel counterclockwise around the traffic circle. The curved roads and one-way travel eliminate the possibility for the most serious "T-bone" and head-on collisions.

- Roundabouts are designed to help slow traffic speed and increase safety of the intersection.
- Studies by the Insurance Institute for Highway Safety and Federal Highway Administration have shown that roundabouts typically achieve:
 - 90% reduction in fatality collisions
 - 37% reduction in overall collisions
 - 75% reduction in injury collisions
 - 40% reduction in collisions with people who are walking

Efficient and accessible

Roundabouts are designed to accommodate vehicles of all sizes, including emergency vehicles, buses, farm equipment, and semi-trucks with trailers.

Please note: Large trucks need to travel in or straddle both lanes through a roundabout. Smaller vehicles should give trucks space and never try to drive next to them.

A highway that is reliable and efficient allows businesses to thrive, adding value to our state economy. Roundabouts support this by moving traffic through intersections more efficiently with fewer traffic-related collisions.



80%

Decrease in fatal and serious injury crashes at nine Washington state intersections since converting from traditional signal configuration to a roundabout.

Lower cost

Roundabouts and traffic signals cost about the same to build but save money in the long term. They eliminate up to **\$5,000–\$10,000** per year in traffic signal hardware, maintenance and electrical costs.

Fewer injury crashes mean less costs to society from lost work days and medical expenses.

Reduced travel time equals reduced fuel costs.

Faster

Roundabouts promote a continuous flow of traffic. Unlike intersections with signals, 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.

For more information about roundabouts and how to drive them, visit: rebrand.ly/roundabouts.

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