

Q: How does a mini-roundabout reduce speeds?

A: In a roundabout, drivers enter the intersection by navigating through curves (chicanes) with curbs on both sides. This results in lower vehicle speeds.



138th Avenue SE and SE 40th Street (Tyee Middle School) Mini-Roundabout

Q: What is the average vehicle speed driving through a roundabout?

A: The average vehicle speed is approximately 15 mph.

Q: How is pedestrian safety improved with a roundabout compared to an all-way stop intersection?

A: At all-way stop intersections, drivers often accelerate through the intersection after they have stopped. This acceleration, whether the vehicle is going straight or turning, increases the danger to pedestrians. Also, many drivers roll through stop signs if they don't see any cross-traffic and sometimes fail to notice pedestrians crossing the street.

It is safer for pedestrians in a roundabout than in a conventional intersection because the number of vehicle movements (e.g., left turns) that could conflict with pedestrians is reduced and crossing distances are shortened.

100th Avenue NE and NE 10th Street Mini-Roundabout Frequently Asked Questions (FAQs)

CITY OF BELLEVUE
NEIGHBORHOOD
SAFETY,
CONNECTIVITY &
CONGESTION LEVY



Q: Why is the city building a mini-roundabout at the intersection of 100th Avenue NE and NE 10th Street?

A: During the design phase of the 100th Avenue NE Complete Streets project, neighbors expressed two primary concerns about the intersection of 100th Avenue NE and NE 10th Street: vehicles not stopping at the all-way stop and pedestrian safety. It was determined that a mini-roundabout was the best way to address both concerns.

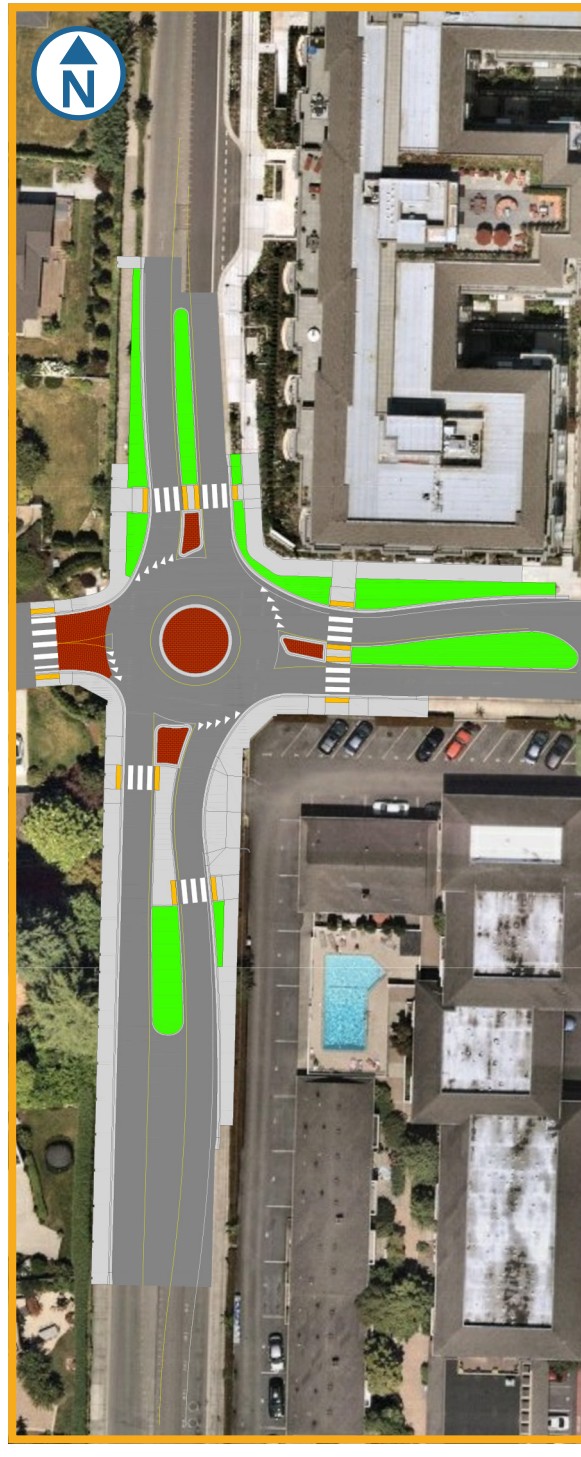
Q: What safety features will the roundabout at 100th Avenue NE and NE 10th Street have?

- A:** The new roundabout will include several new safety features:
- Crosswalks are farther back from vehicle traffic, allowing drivers more time to

react to people crossing roadway before merging onto or out of the roundabout.

- Pedestrian crossing signs on both sides of the street on all crosswalk locations.
- Rectangular Rapid Flashing Beacons (RRFB) on the north, south, and east legs of the intersection to enhance pedestrian safety.
- Additional lighting to make pedestrians more visible at night.
- Crosswalk distance is shortened from about 50 feet.
- Placing a crosswalk 20 feet from the yield line allows pedestrians to walk behind a vehicle that is waiting to enter the roundabout.

100th Avenue NE and NE 10th Street
Mini-Roundabout Design Concept



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For more information about roundabouts in Bellevue

Visit BellevueWA.gov/roundabouts

Contact Jun An, senior project manager, Transportation Department at 425-452-4230 or jan@bellevuewa.gov.

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For alternate formats, interpreters, or reasonable accommodation requests please phone at least 48 hours in advance 425-452-2064 (voice) or email mjensen@bellevuewa.gov. For complaints regarding accommodations, contact City of Bellevue ADA/Title VI Administrator at 425-452-6168 (voice) or email ADATitleVI@bellevuewa.gov. If you are deaf or hard of hearing dial 711. All meetings are wheelchair accessible.

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Q: How does the roundabout effect the proposed bike lanes on 100th Avenue NE?

A: Transportation staff worked with the community to identify the best way to accommodate people riding bikes and decided on a multi-purpose path on the east side of the 100th Avenue NE, between NE 14th Street and NE 24th Street. At this time there are no other bicycle improvements planned on 100th Avenue NE between NE 8th and NE 14th streets. People on bikes can choose to ride through the roundabout with traffic or walk their bicycles through the pedestrian crosswalks.

Q: Will the median islands be planted with vegetation?

A: Yes, median (splitter) islands will be planted with vegetation.

Q: Will the central roundabout island be landscaped?

A: No, the central island will not include vegetation because the mini-roundabout is designed to be driven over by buses and trucks as they make their turns. Buses and trucks larger than a typical UPS van will need to drive over the central island (especially when making left turns) due to the tight turning radius. The central island will include patterned, colored concrete.

Q: Will the roundabout impact emergency response times?

A: The city's Fire Marshal says department staff will treat the central island the same as driving over a speed hump, which will add approximately seven seconds to response times. However, the roundabout should improve the efficiency of the existing all-way stop, which would likely make up for most, if not all of the additional seven seconds it takes to drive over the island.

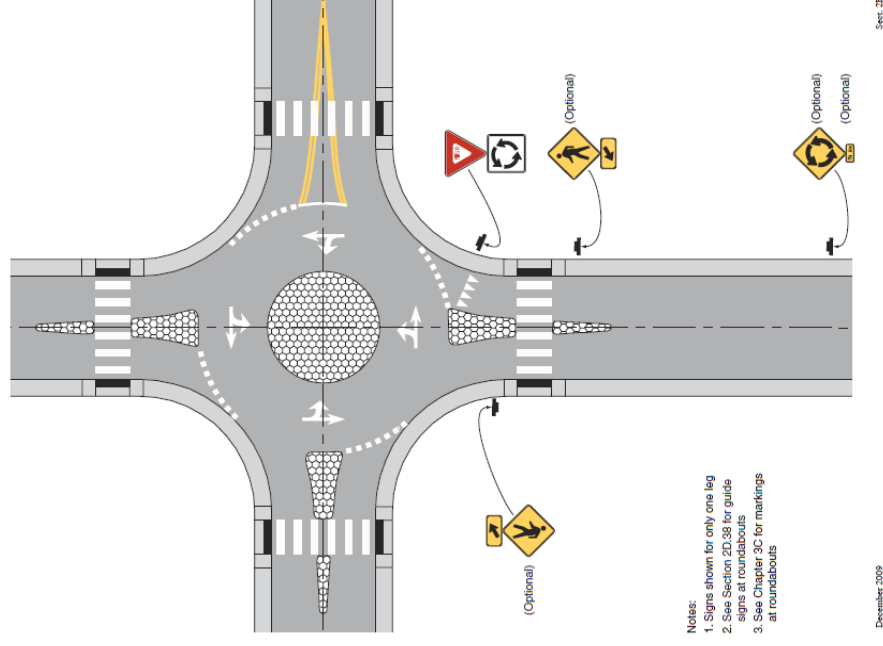
Q: What other improvements at this intersection were considered?

A: An all-way stop intersection with no turn lanes was evaluated. Although this alternative would improve pedestrian safety and would be familiar to drivers, it would increase traffic delays and would not necessarily solve vehicles not stopping at the all-way stop issue.

A traffic signal was considered as well, but current and predicted traffic volumes do not support the need for one. Also, a signalized intersection would not solve the issue of vehicle speeding on 100th Avenue NE.

Q: How many signs will there be at the mini-roundabout?

A: The adjacent illustration (Figure 1) shows the signs that will be included. An advanced roundabout warning sign will inform drivers there is a roundabout ahead. Pedestrian crossing warning signs will emphasize to the drivers to expect pedestrian at the crossing. Finally, a yield sign with roundabout symbol sign will be placed prior to entering the roundabout.



Q: Will more bus layover zones be needed on NE 10th Street and 100th Avenue NE?

A: It's possible. Curb space in downtown Bellevue is both in high demand and extremely limited. In addition to transit layovers, public right-of-way downtown also must accommodate freight deliveries, passenger pick-ups and drop-offs, short-term parking, bicycle travel and vehicle travel. Bus layover space is extremely important in providing quality transit service, which is critical to meeting the growing travel demand downtown. The city currently is working with King County Metro and Sound Transit to develop a bus layover plan to address anticipated needs through 2025. We'll know more when the study is completed in mid-2020. Questions regarding the layover study can be directed to Chris Iverson at civerson@bellevuewa.gov.

Figure 1: Example of Regulatory and Warning Signs for a Mini-Roundabout

Source: Manual on Uniform Traffic Control Device (MUTCD) – Mini-Roundabout Signs

Q: How will increased traffic from future development affect the roundabout?

A: The City's travel demand model forecasts future volumes and travel patterns based on adopted land use projections and planned transportation network improvements. The forecasts (for the year 2029) show a 7% increase in vehicle volumes in the morning peak and a 13% increase in the afternoon peak. The traffic analysis shows that a roundabout will continue to operate well. The average future vehicle delay in the roundabout is estimated to be 11.6 seconds per vehicle versus the existing all-way stop that is estimated at 17.4 seconds per vehicle.



Bus Layover Zone on NE 10th Street Just East of 100th Ave NE