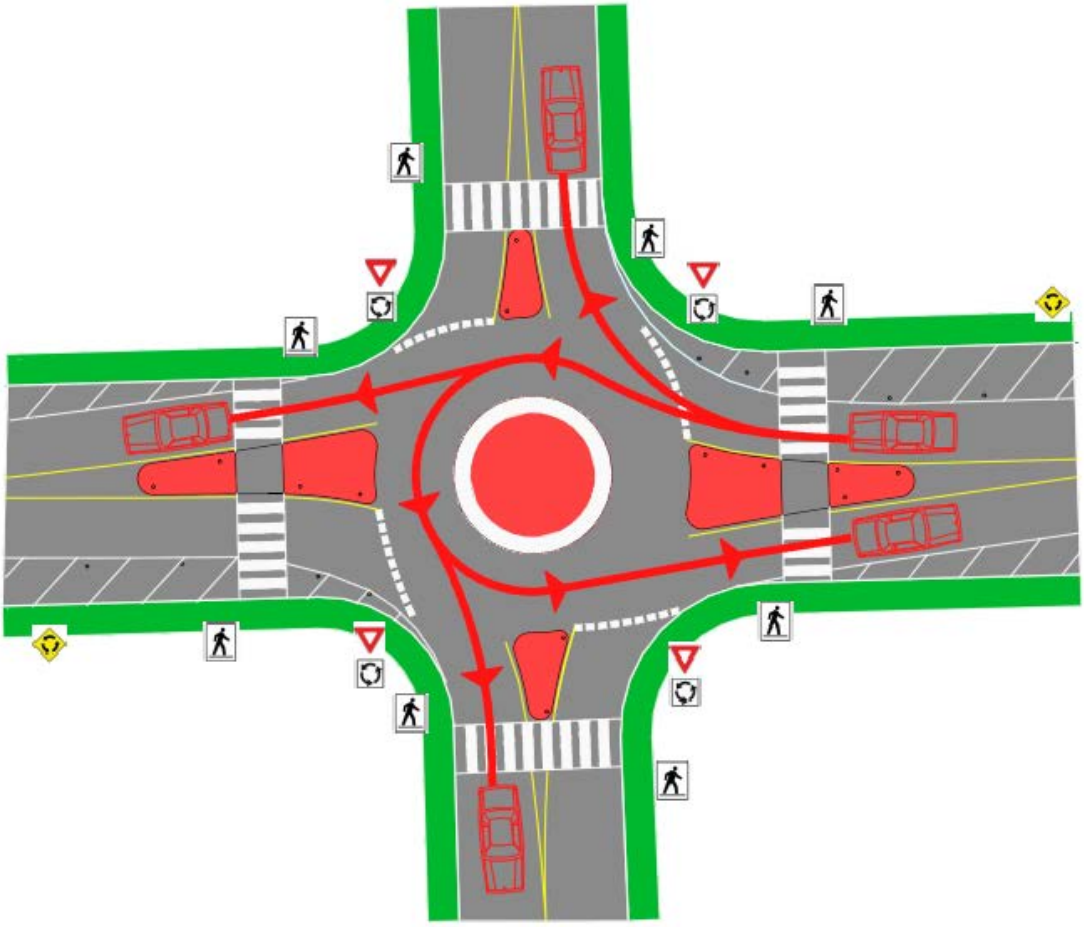
Mini Roundabout Frequently Asked Questions



1. Frequently-Asked Questions

1. “How is a mini-roundabout different than a regular roundabout?”
2. “Why are we building mini-roundabouts in Sundre instead of regular roundabouts?”
3. “What will the mini-roundabouts be made of?”
4. “Will the mini-roundabouts be raised?”
5. “How will I get my trailer or RV through the mini-roundabouts?”
6. “How will large trucks and agricultural equipment get through the mini-roundabouts?”
7. “Will long loads like logging trucks swing out into pedestrians or buildings”?
8. “What happens when flexible bollards break off after repeated strikes”?
9. “Why aren’t mini-roundabouts always used instead of regular roundabouts?”
10. “Will these mini-roundabouts be safe for pedestrians?”
11. “How will these mini-roundabouts be maintained in the winter?”
12. “Will there be any public education on use of the mini-roundabouts”?
13. “Will businesses lose their access to Highway 27”?
14. “With a 2-lane cross section on Highway 27, where do drivers pull over to let emergency vehicles pass?”
15. “Is the new 1st Street access sufficient for emergency vehicles”?
16. “Will queues from the Centre Street signals back up to the mini-roundabout at 2nd Street?”
17. “Some buildings are very close to the roadway. Will sightlines be an issue?”
18. “Can RCMP enforcement be increased?”

2. Frequently-Asked Questions with Answers

1. “How is a mini-roundabout different than a regular roundabout?”

   A mini-roundabout is not simply a small roundabout. Rather, it is a roundabout with a fully-mountable central island. Sometimes the splitter islands are fully-mountable too. This allows them to be over-tracked by trucks and other large vehicles, enabling a mini-roundabout to be used within an existing intersection footprint. However mini-roundabouts, like regular roundabouts, need some means of slowing vehicle speeds so that drivers yield at entry to circulating traffic.

2. “Why are we building mini-roundabouts in Sundre instead of regular roundabouts?”

   Regular roundabouts, with non-mountable central islands that traffic has to go around, would have to be quite large to accommodate trucks and over-dimensional loads along Highway 27, and vehicles making left turns to/from Highway 27 and the side streets. This would require property outside the right-of-way, and make the roundabouts very expensive. It is hoped these mini-roundabouts can achieve many of the same goals as regular roundabouts but with much less cost and installation time.

3. “What will the mini-roundabouts be made of?”

   A couple alternatives are being looked into. One is simply red-painted asphalt with painted lines around the outside of the splitter islands and central island. The other is a rubber material that comes in sections that are bolted to the asphalt. With either alternative flexible bollards will be placed at certain locations to help direct traffic and not make it too easy to drive straight through the mini-roundabouts without slowing down.

4. “Will the mini-roundabouts be raised?”

   No portions of the mini-roundabouts would be raised if they consist of red-painted asphalt. If they are made of a rubber material then they would be raised approximately 100 mm (4 inches).

5. “How will I get my trailer or RV through the mini-roundabouts?”

   If you’re driving along Highway 27, you will be able to navigate the mini-roundabouts without over-tracking the splitter islands or central island. If you’re turning right, you’ll need to drive over part of the splitter island as you complete your movement. If you’re turning left, you’ll need to driver over some or most of the central island.

6. “How will large trucks and agricultural equipment get through the mini-roundabouts?”

   It is expected that large trucks and wide agricultural equipment will remain on Highway 27 as they navigate the mini-roundabouts. Regular tractor semi-trailers will need to over-track the outer edge of the central island, and possibly some of the splitter islands as well. Wide tractors and combines may swing across the central island. Larger over-dimensional vehicles will need to over-track most of the splitter islands, central island and flexible bollards.

7. “Will long loads like logging trucks swing out into pedestrians or buildings?”

   Longer loads will be restricted from turning onto side roads and will be able to drive over the central islands of the mini-roundabouts to avoid dangerous swing outs.

8. “What happens when flexible bollards break off after repeated strikes?”

   Regular maintenance will replace and remove damaged bollards so they don’t result in a potential hazard to drivers or pedestrians.

9. “Why aren’t mini-roundabouts always used instead of regular roundabouts?”

   Mini-roundabouts involve some compromises. Because the central island is fully-mountable it is more difficult to achieve speed control, and it means no signs to convey direction of travel or landscaping to increase visibility can be installed. This makes mini-roundabouts unsuitable for rural locations or intersections with high approach speeds.

10. “Will these mini-roundabouts be safe for pedestrians?”

    Statistically, regular roundabouts are safer for pedestrians than signalized intersections. Studies in Europe have shown reductions in injury crashes with roundabouts of between 50% and 80%. Roundabouts are safer because traffic speeds are lower, crossings are made in two stages via a refuge area in the splitter island, pedestrians only have to watch for traffic in one direction at a time, and drivers are more likely to be looking in the direction of pedestrians. The same is generally true for mini-roundabouts, although the splitter islands may not provide as much of a refuge area if they are fully-mountable.

11. “How will these mini-roundabouts be maintained in the winter?”

    The mini-roundabouts will be ploughed straight through east-west by Alberta Transportation, just as Highway 27 is now. Town maintenance staff will clear sections on the central island, and in the splitter islands and around the outside next to the flexible bollards, using smaller equipment.

12. “Will there be any public education on use of the mini-roundabouts?”

Yes, Alberta Transportation will assist the Town in providing public education on use of the mini-roundabouts.

13. "Will businesses lose their access to Highway 27?"

    Access management will continue to follow the 2009 Functional Planning Study.

14. "With a 2-lane cross section on Highway 27, where do drivers pull over to let emergency vehicles pass?"

    Any street furniture adjacent to vehicle travel paths would be offset enough to allow drivers to pull over on either side, leaving the middle of the roadway open to allow emergency vehicles to pass.

15. "Is the new 1st Street access sufficient for emergency vehicles?"

    After speaking with emergency services, a right in, right out access at 1st Street will be sufficient. Consideration will be given to installing flexible bollards like those planned at the mini-roundabouts.

16. "Will queues from the Centre Street signals back up to the mini-roundabout at 2nd Street?"

    A queuing analysis estimates a maximum queue length of 102 m during peak summer tourist season. The 2nd Street roundabout, at a distance of 174 m, should not be affected.

17. "Some buildings are very close to the roadway. Will sightlines be an issue?"

    Sightlines will be no different with the mini-roundabouts than they are now.

18. "Can RCMP enforcement be increased?"

    Having spoken with Peace Officers working along the corridor, speeding is not believed to be an issue at this time.

Additional information available:

- https://www.youtube.com/watch?v=idzt5hoDRhE (instructional)
- https://www.youtube.com/watch?v=3KLbr1awEbk (various vehicle movements starting at 4:10)
- https://www.scottcountymn.gov/962/CH-79-Vierling-Drive-Mini-Roundabout
- http://www.transportation.alberta.ca/projects/central.aspx

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