

Round-A-Bout Intersections

- Snow Removal
Techniques/suggestions



Some General Information

- There are two basic types of roundabouts: single-lane and multi-lane. There are a few key things to remember about driving through roundabouts: Yield to drivers already in the roundabout (on the circulating roadway) Stay in your lane; do not change lanes.

Generic images of types of Roundabouts



Common Challenges

- **The unique design of roundabouts presents specific difficulties for winter maintenance crews.**
- **Visibility issues:** Snow piled in the central island or on splitter islands can obstruct a driver's view of traffic, which can lead to accidents. Plowing patterns are designed to prevent this.
- **Driver confusion:** In snowy conditions, faded lane markings and unclear signage can confuse drivers, especially those new to roundabouts. Reduced lane widths from snow buildup can also make navigation more difficult.
- **Equipment wear:** The constant turning required to plow roundabouts can put extra stress and wear on the passenger-side equipment of snowplow trucks.
- **Curb damage:** Snowplows can damage the curbs and aprons of a roundabout, especially in areas with very tight turning radii. In colder regions, designs may specify more durable curb types.
- **Meltwater refreezing:** If snow is piled too close to the roadway, it can melt and then refreeze on the road surface, creating a hazard. This is avoided by pushing snow well away from the traffic lanes.

Things to consider

- Application timing
- Traffic volumes
- Forecast
- Adjust equipment

Plowing Techniques

- **Snow is cleared from the center of the roundabout outward to prevent snow from piling up in the middle.**
- **Circulating plow passes:** A snowplow truck circles the roundabout multiple times, gradually moving snow from the inner lanes to the outer lanes.
- **Approaches and exits:** After the central circle is clear, a truck plows the approaching and exiting lanes. The snow is pushed away from the roundabout itself, not onto the central island or the triangular "splitter islands".
- **Wing plows:** For efficiency, some trucks are equipped with both a front plow and side "wing" plows. When plowing straight approach roads, the wing plows can be deployed. However, only the front plow is used when circling the roundabout to prevent plowing snow into a live traffic lane.
- **Dual-truck plowing:** To clear multi-lane roundabouts more quickly, some agencies use two trucks in an echelon formation, with one following the other to clear multiple lanes at once.

De-Icing Strategies

- **After plowing, de-icing agents are applied to melt remaining ice and prevent refreezing.**
- **Salt treatments:** Standard rock salt is a common and affordable option but is less effective in extremely cold temperatures.
- **Specialized de-icers:** Other agents like calcium chloride and magnesium chloride work in colder temperatures and can be more eco-friendly, though they are often more expensive.
- **Combination of liquids and granules:** Some communities use a mix of liquid and granular de-icing treatments for best results.

A large, snow-covered tree dominates the foreground, its branches heavily laden with white snow. The tree's trunk is dark and textured. In the background, a line of similar snow-covered trees stretches across the horizon under a pale, overcast sky. The ground is a flat, snow-covered field.

Questions?