

# Access Conflict Points

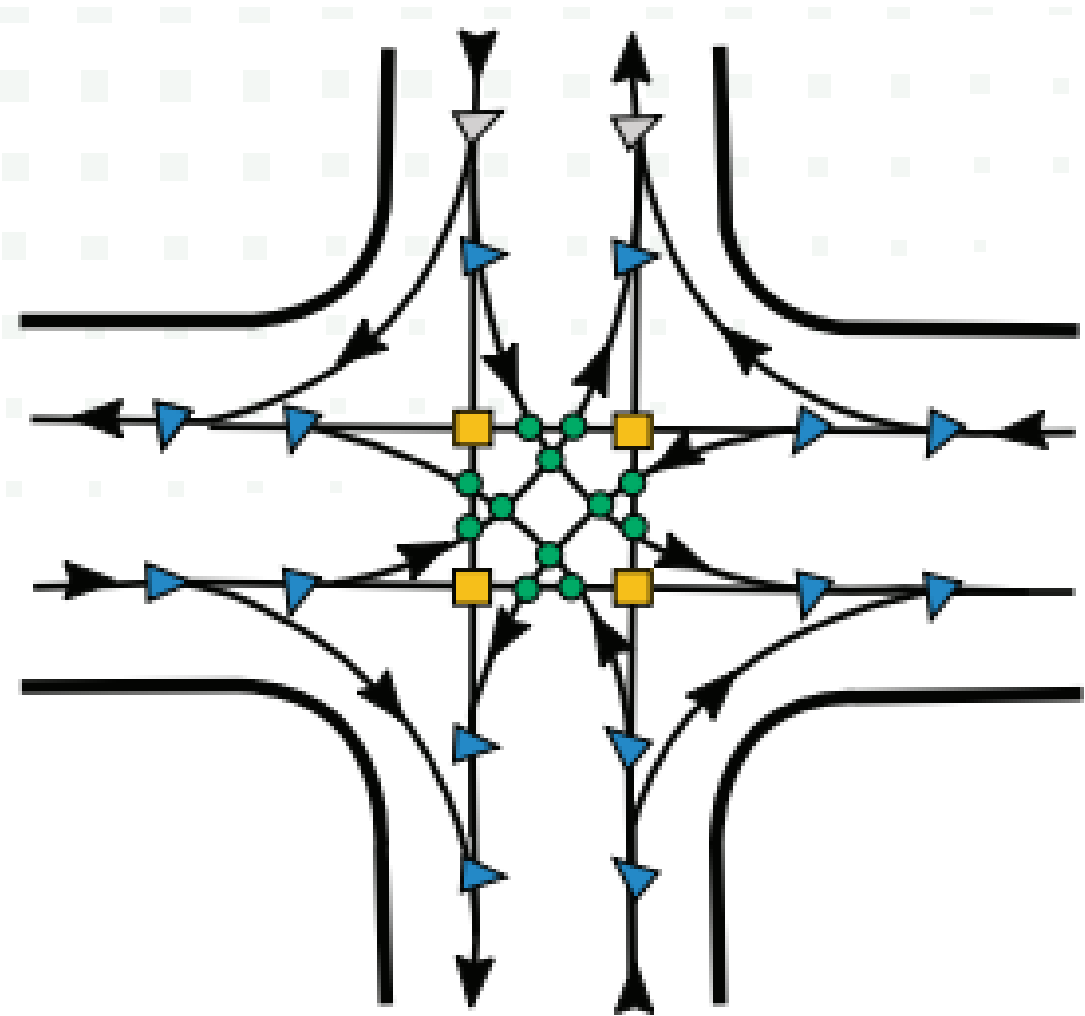
## What is a Conflict Point?

A conflict point is the point at which a highway user crossing, merging, or diverging from a road or driveway conflicts with another highway user using the same road or driveway.

## Why are Conflict Points Important?

The more conflict points the higher the number of potential vehicle crashes. Some conflict point types also result in crashes with a higher level of severity. For example, a T-bone crash at an intersection is more likely to result in serious injury than a sideswipe type crash at a roundabout.

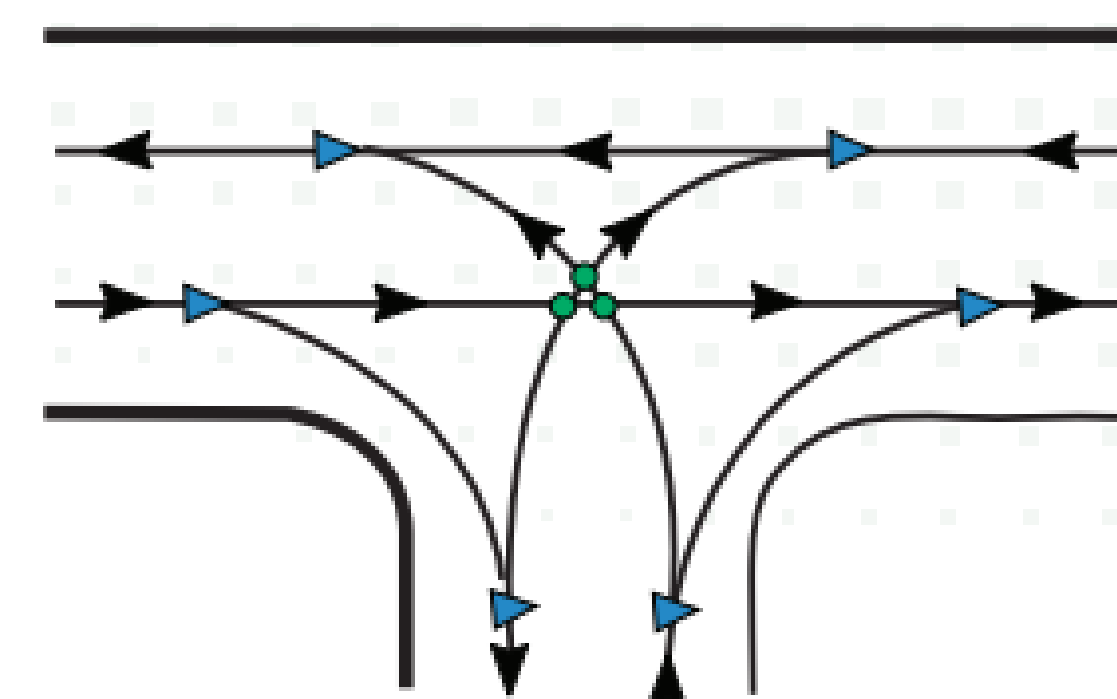
### Full Access



#### Conflict Points:

Crossing = 4  
Turning = 12  
Merge/Diverge = 16  
**Total = 32**

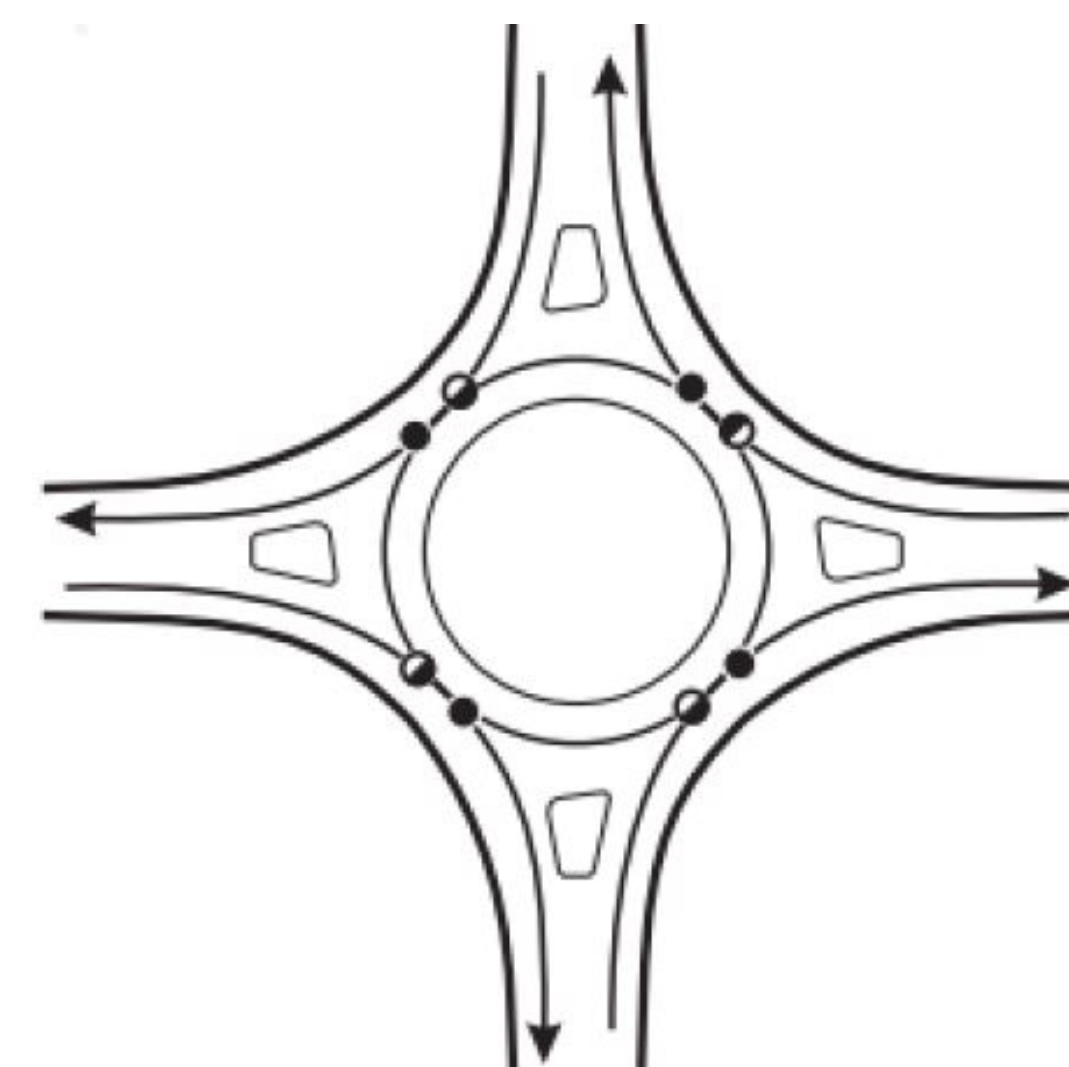
### Full Access



#### Conflict Points:

Crossing = 0  
Turning = 3  
Merge/Diverge = 6  
**Total = 9**

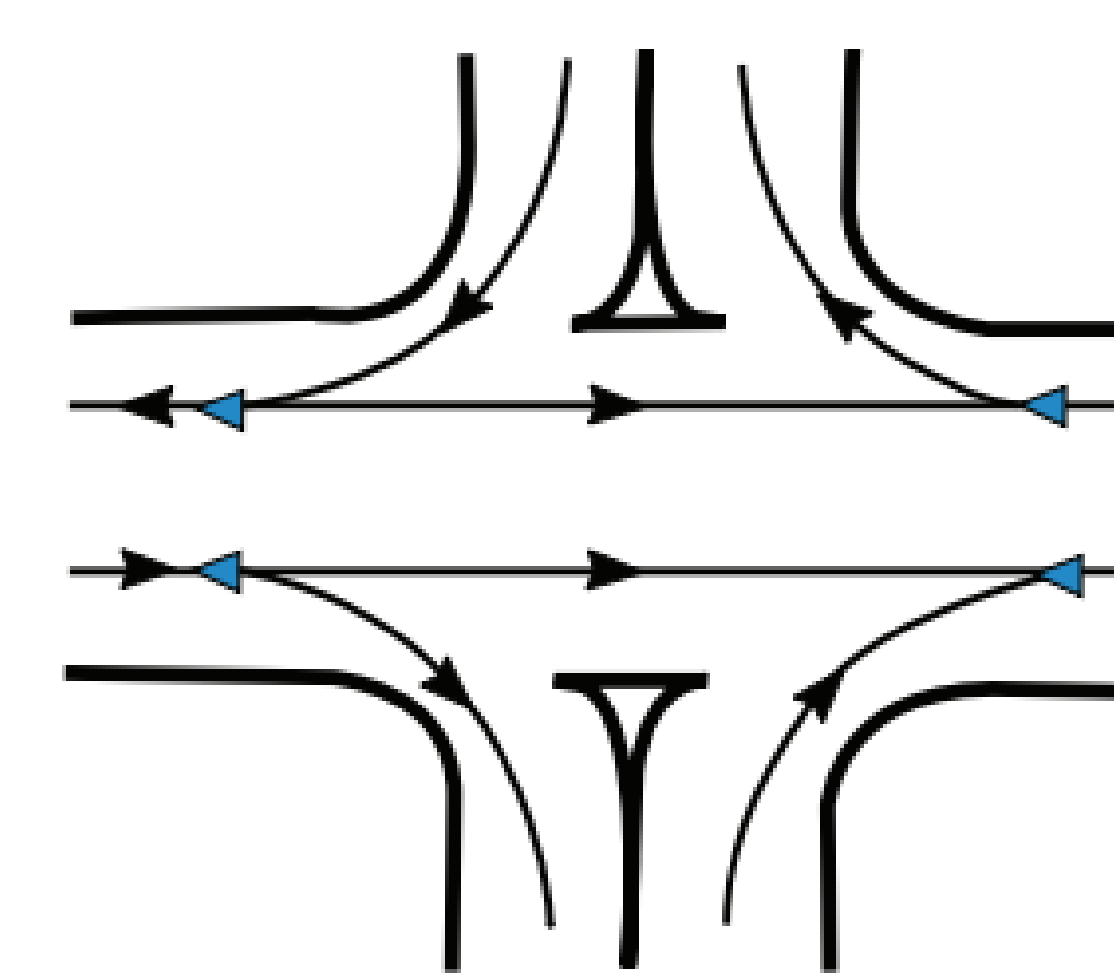
### Roundabout



#### Conflict Points:

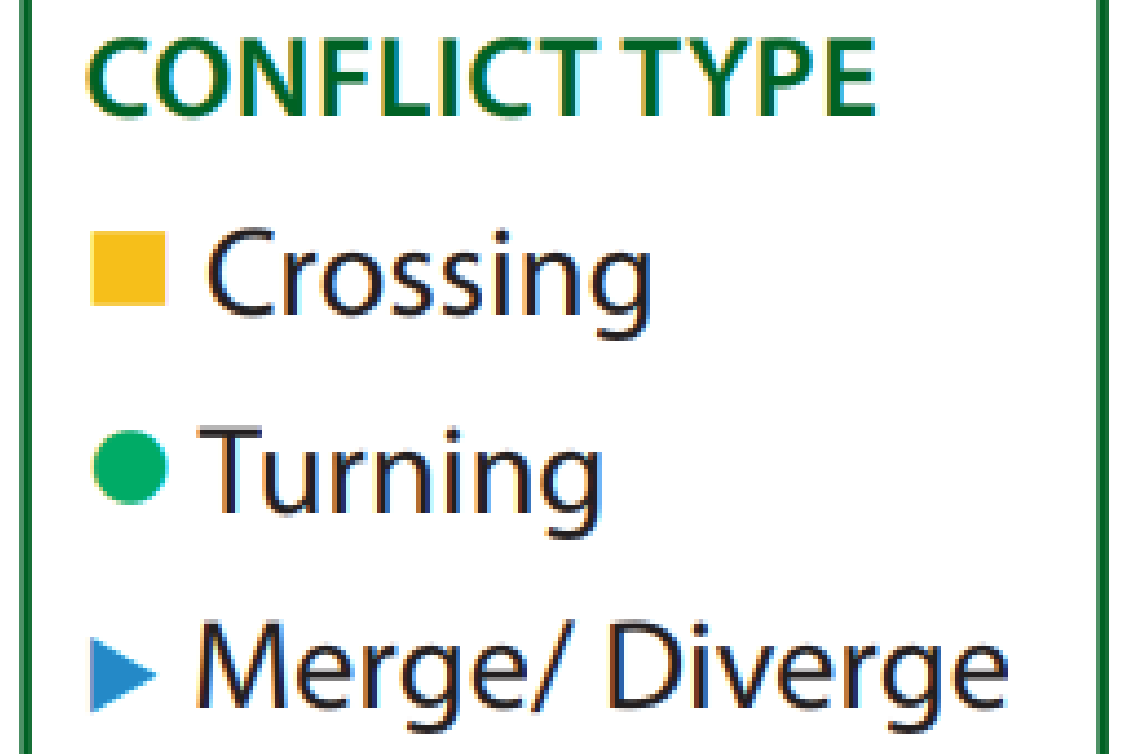
Crossing = 0  
Turning = 0  
Merge/Diverge = 8  
**Total = 8**

### Right In/Out Access



#### Conflict Points:

Crossing = 0  
Turning = 0  
Merge/Diverge = 4  
**Total = 4**



Source: Minnesota's Best Practices and Policies for Safety Strategies on Highways and Local Roads

# Crash History

## Crash Data

Crashes at the intersection between **2017** and **2021** were examined. Below is the number of crashes sorted by level of injury or damage.

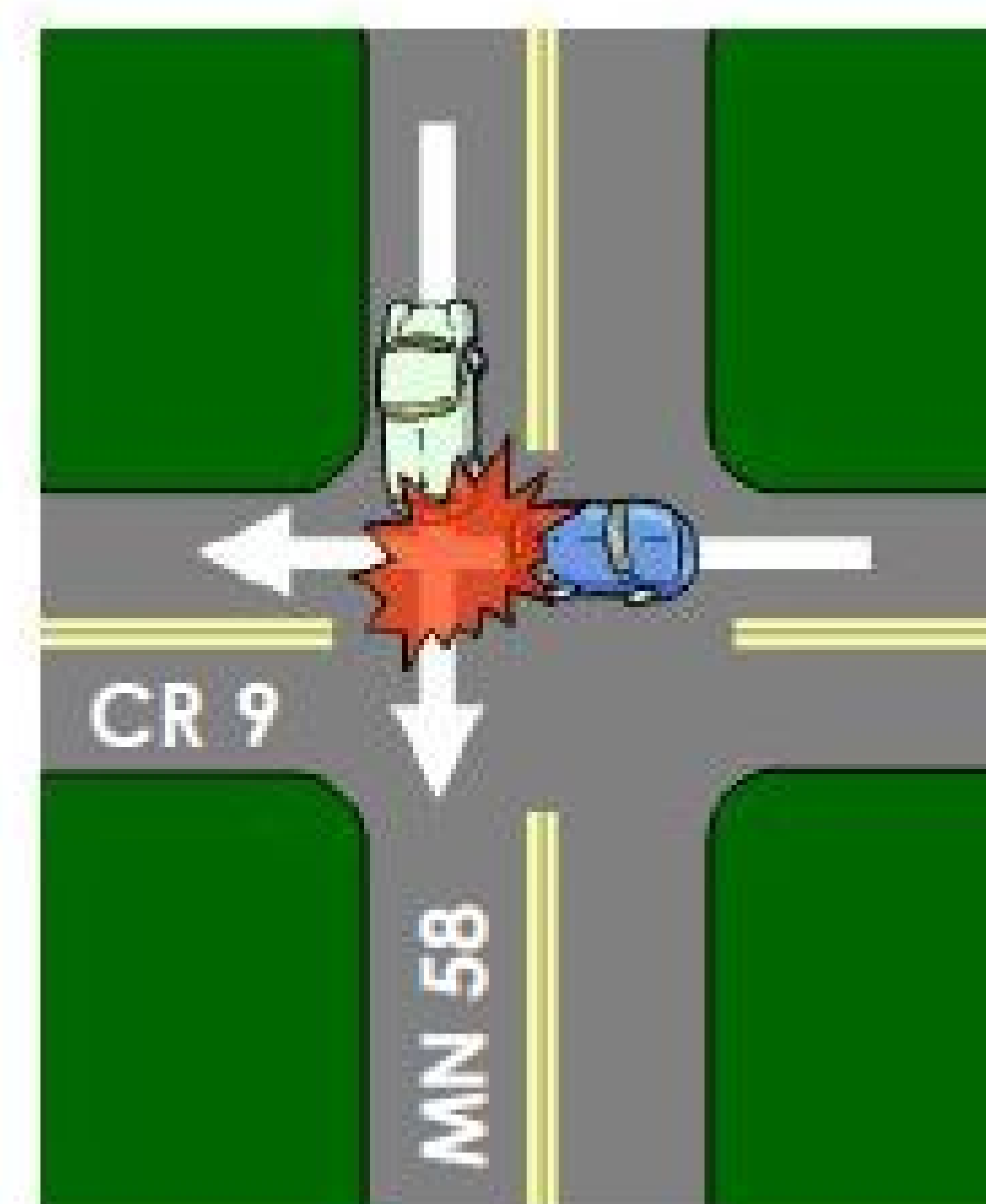
Level of Injury/Damage	Number of Crashes
Fatality	1
Serious Injury	1
Minor Injury	3
Possible Injury	5
Property Damage Only	8
<b>5-year Total</b>	<b>18</b>

- Rate of crashes is **16 times** higher than average in Minnesota for similar rural intersections with side street stop signs
- Rate of fatality or serious injury is **33 times** higher than average in Minnesota for similar intersections

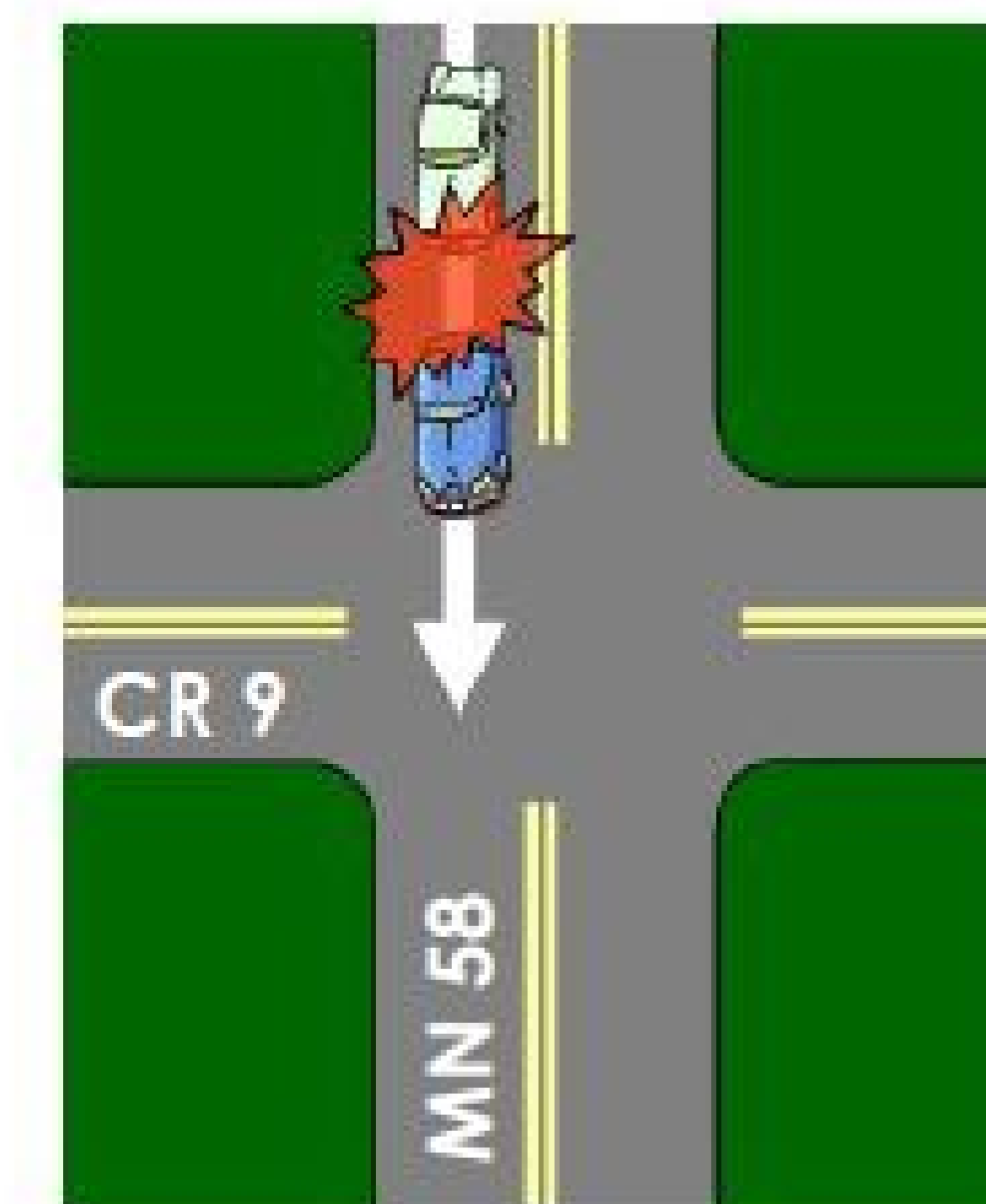
## Crash Patterns

- The most common crash type at the intersection was a right angle crash – 16 crashes between 2017 and 2021
- The one fatal crash was a left turn crash, leading to a head-on collision
- One rear end crash occurred on County Road 9 involving a farm vehicle

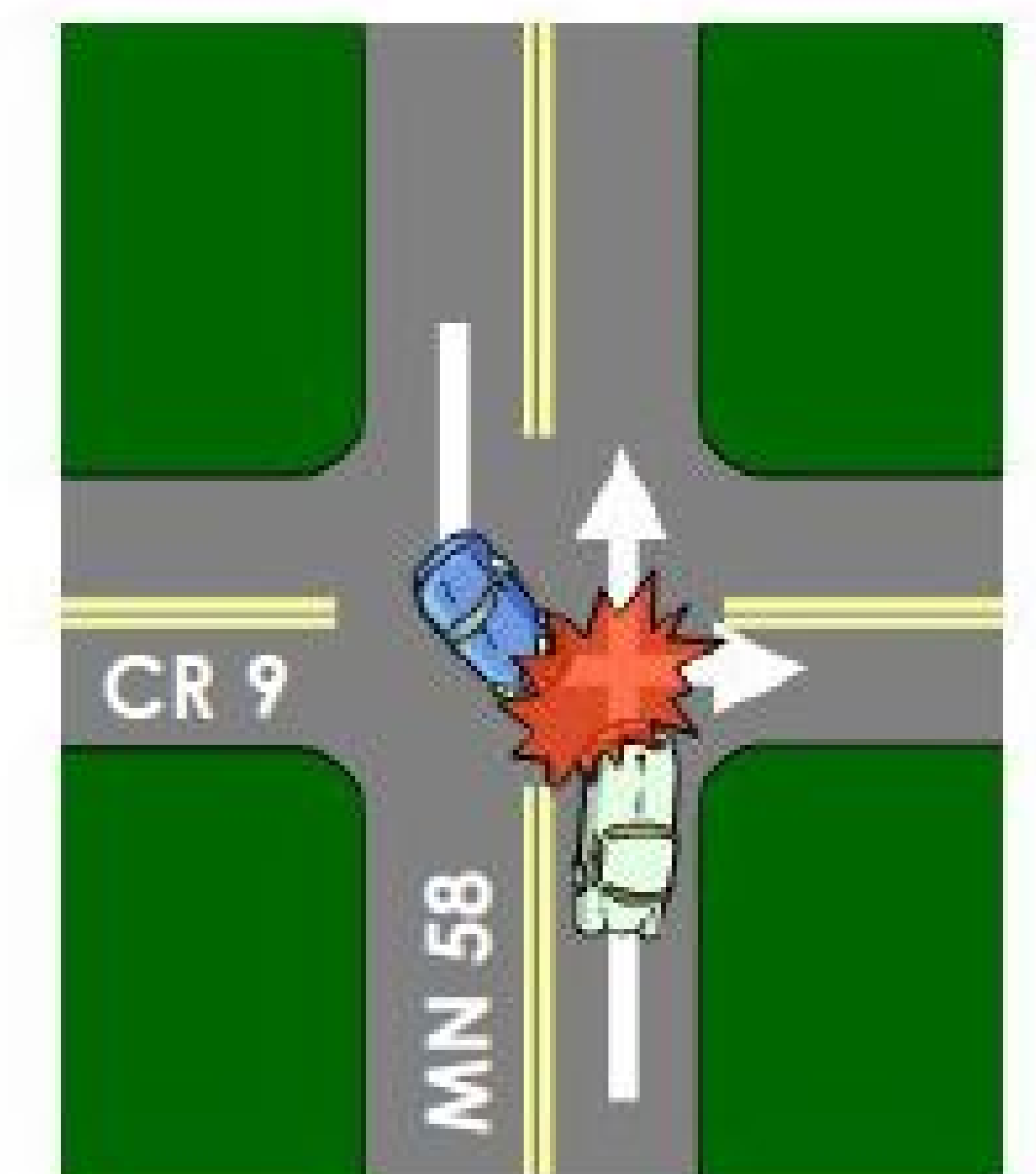
## Crash Types



Right Angle



Rear End



Left Turn

Source: Thinking Driver

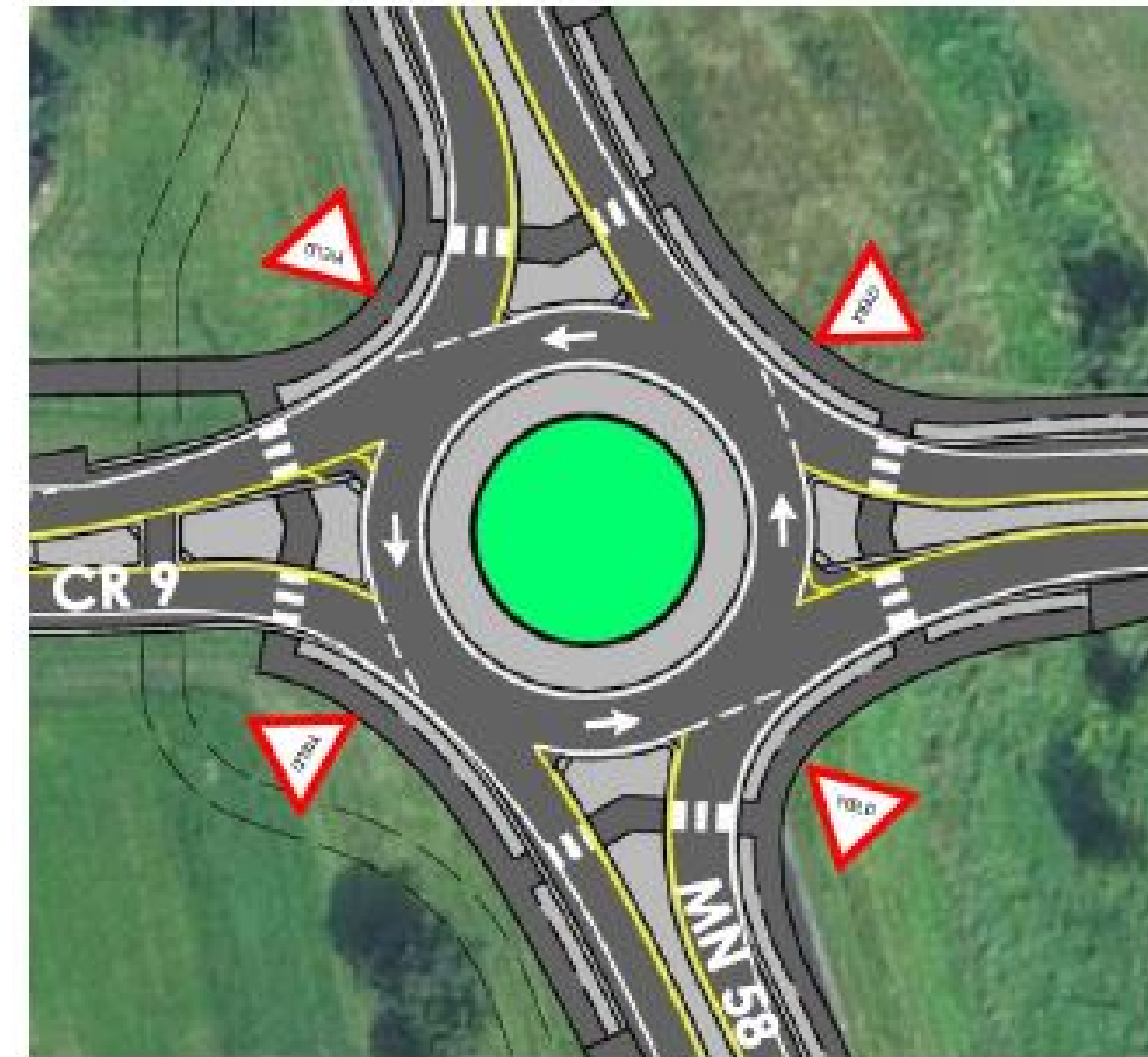
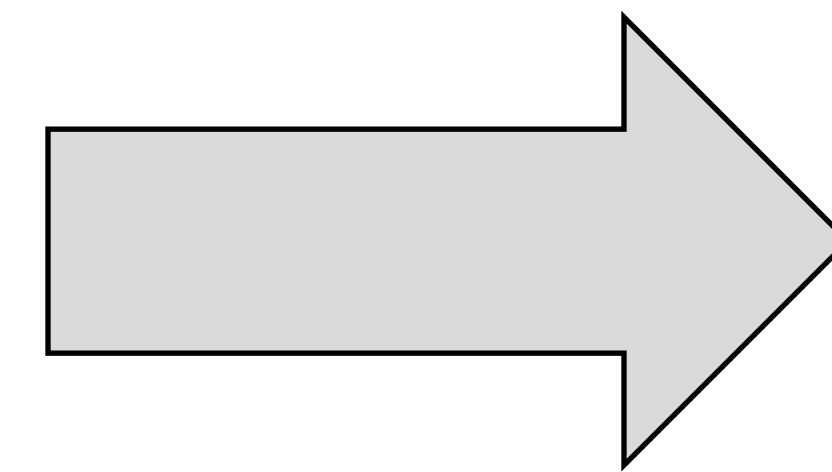
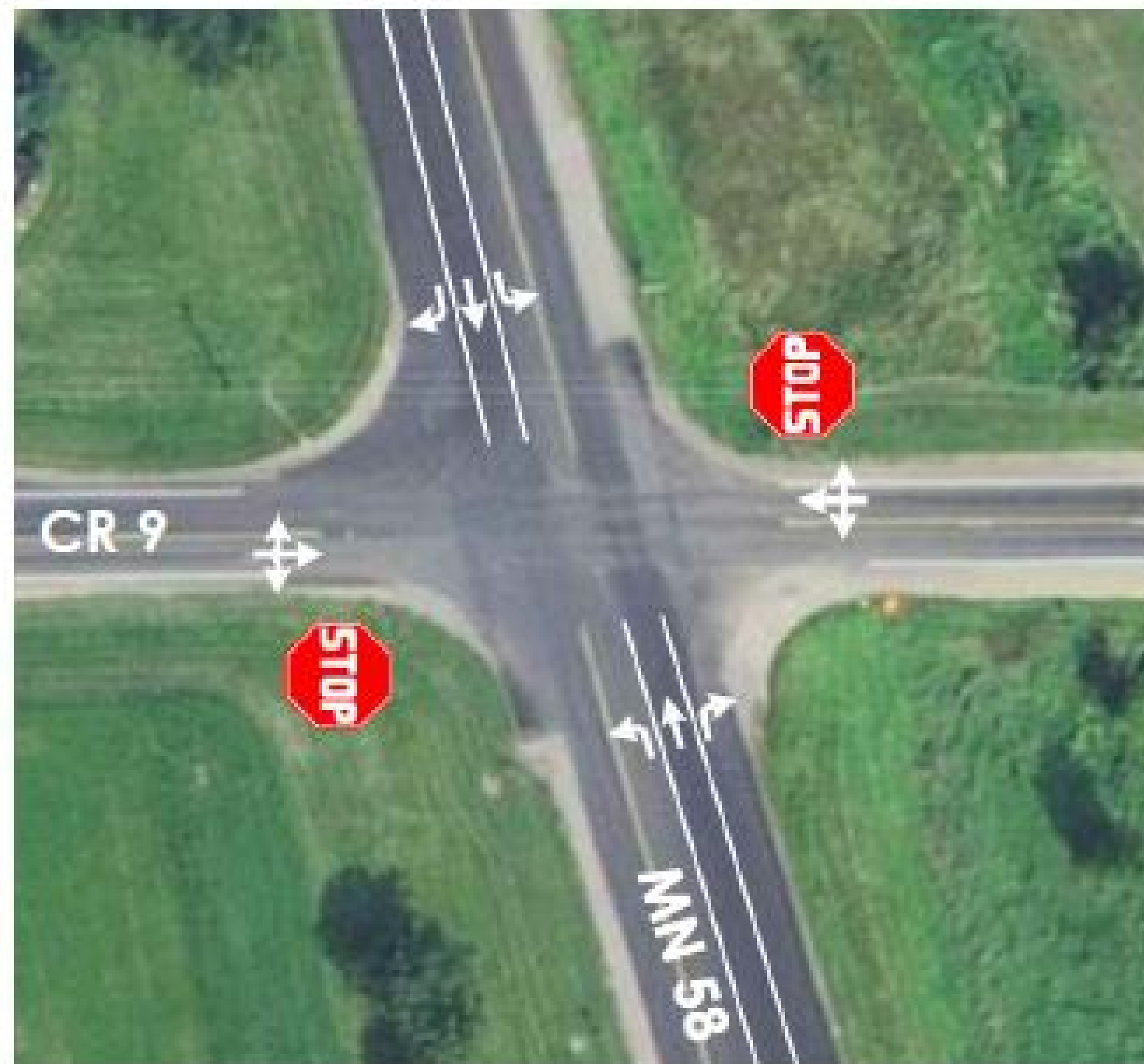


# Improvements to Safety

## Safety Analysis

An analysis was performed to find which improvements would create a safer intersection.

**Converting the side street stop intersection to a roundabout offers the greatest crash reduction potential**



69% ↓

Decrease in right angle crashes

83% ↓

Decrease in left turn crashes

+80% ↓

Decrease in fatal and serious injury crashes

- Roundabouts have lower approach speeds and fewer opportunities for high-speed angle and left turn crashes, which are more severe and result in more serious injuries
- Previous MnDOT studies have proven that roundabouts reduced severe crashes at similar intersections

# Typical Section Drawing

Location:

Highway 58 Northbound, Approaching County Road 9

