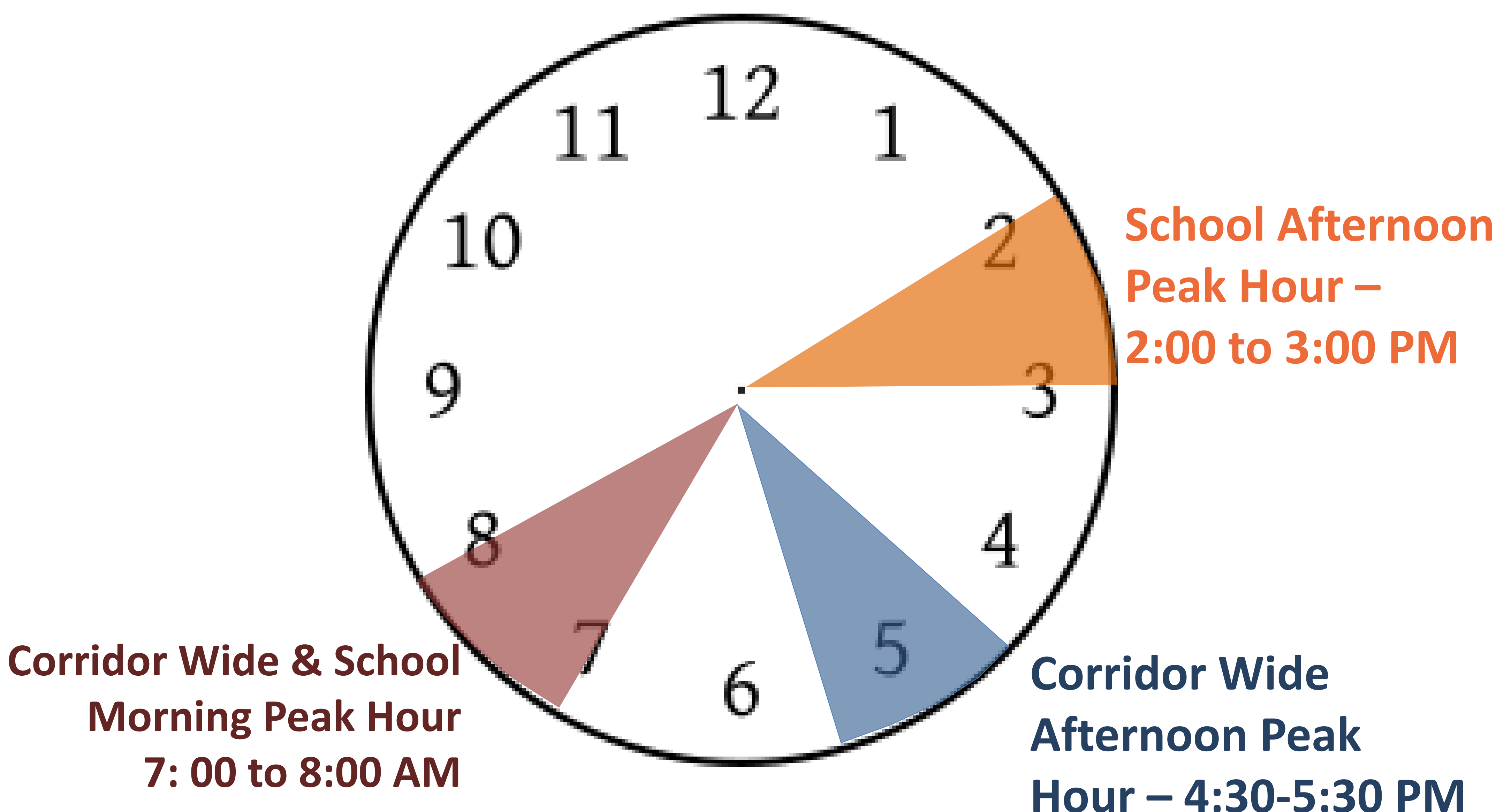


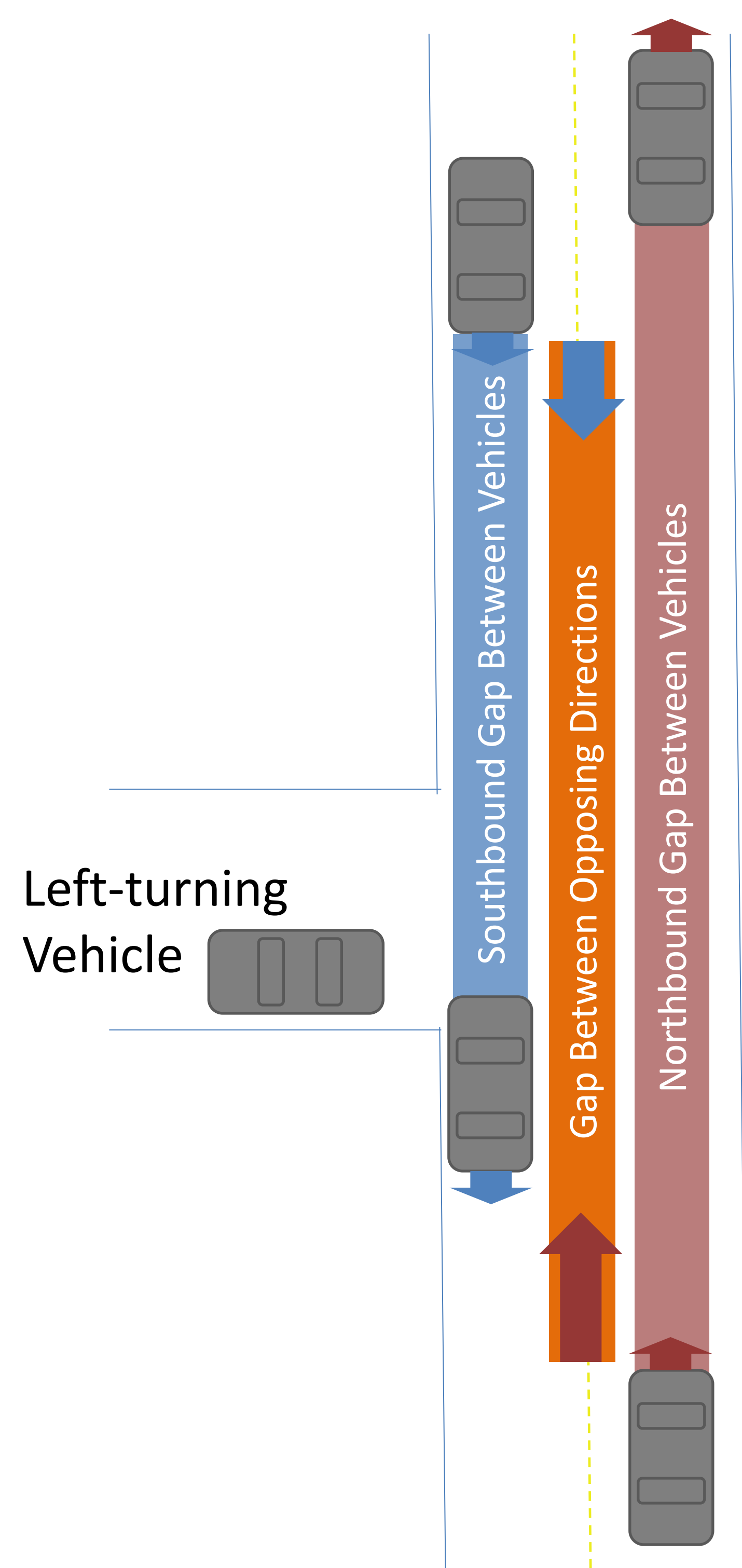
What Time of Day Was Analyzed?

- The peak hours for the corridor are 7-8 AM and 4:30-5:30 PM based on actual counts collected in early December, 2012.
- The AM peak hour for the corridor includes the peak traffic leaving Kenwood Trail Middle School in the morning. The school's afternoon peak occurs when County 50 traffic is not at it's peak in the afternoon.



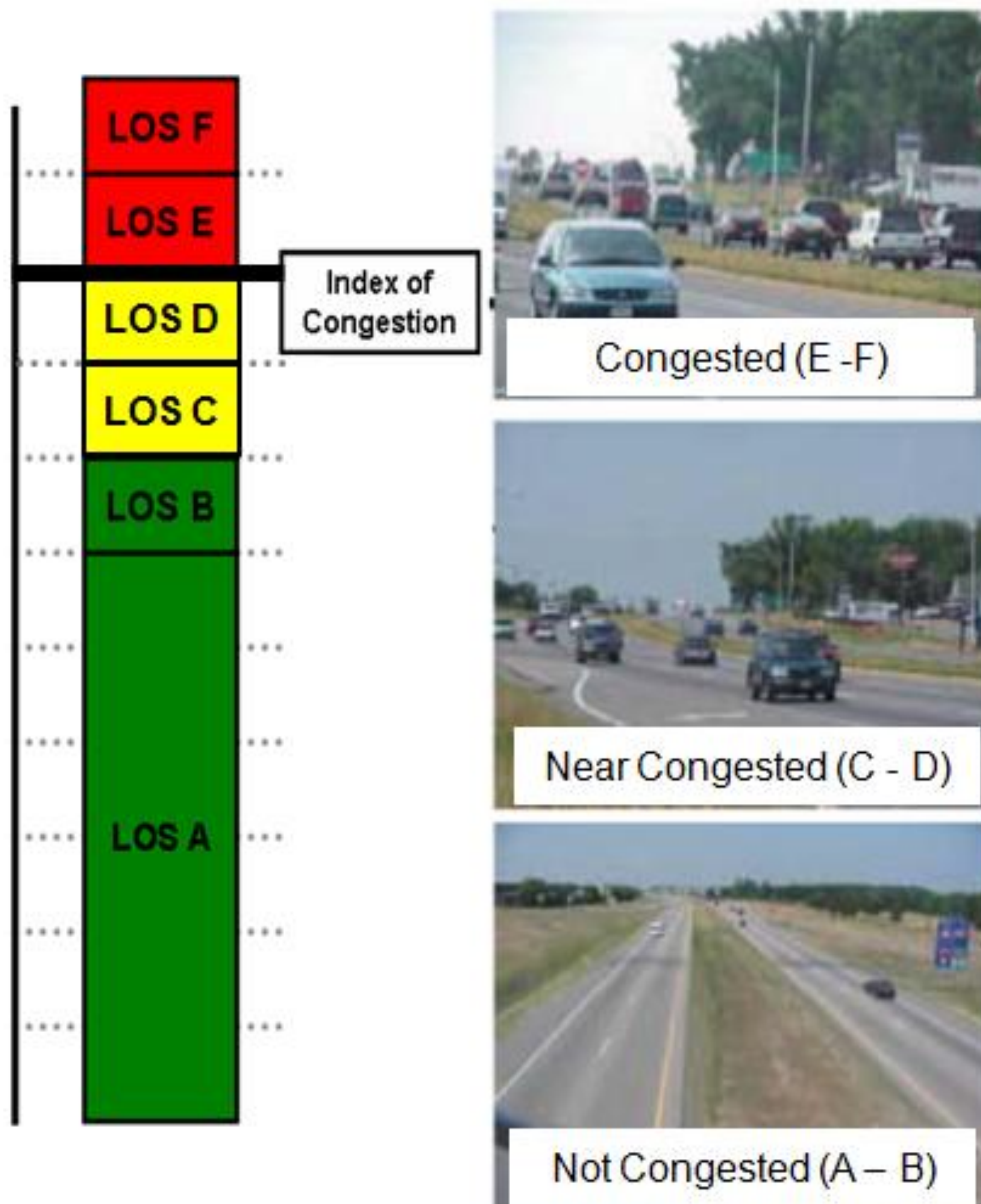
How Are Gaps Assessed?

- A gap is the amount of time available for a vehicle on a side street to make a left turn onto Highway 50 based on gaps in traffic in both directions that overlap.
- An Acceptable Gap is any gap 8 seconds or more.
- The length of a gap also defines how many vehicles can make a left onto County 50. For example, a 12 second gap allows for 2 vehicles to turn left onto Highway 50.
- The number of vehicles reported that can access Highway 50 is conservative since the minimum acceptable gap works for left-turning vehicles. Vehicles turning right only need a gap in one direction.



What does Level of Service mean?

- A traditional operational performance measure for roadways is the level of service (LOS).
- A letter, A through F, is assigned to a roadway or intersection based on performance, with A being the best (no congestion) and F being the worst (unacceptable congestion)



What if we just lower the speed limit?

- Studies have shown that merely changing the speed limit sign is not successful in changing driver behavior and does not result in significant change in vehicle speeds.

- As shown in table to the right, various locations in Minnesota attempted to change operating speeds along a corridor by changing the speed limit signs but each had no impact.

Speed Zoning Studies					
Study Location	Before	After	Sign Change +/- MPH	85% Before After	Change MPH
T.H. 65			-10	34 34	0
T.H. 65			-10	44 45	+1
Anoka CSAH 1			-5	48 50	+2
Anoka CSAH 24			+15	49 50	+1
Anoka CSAH 51			+5	45 46	+1
Hennepin CSAH 4			-10	52 51	-1
Noble Ave			+5	37 40	+3
62nd Ave N			-5	37 37	0
Miss. St			+5	39 40	+1

Source: Mn/DOT UnPublished

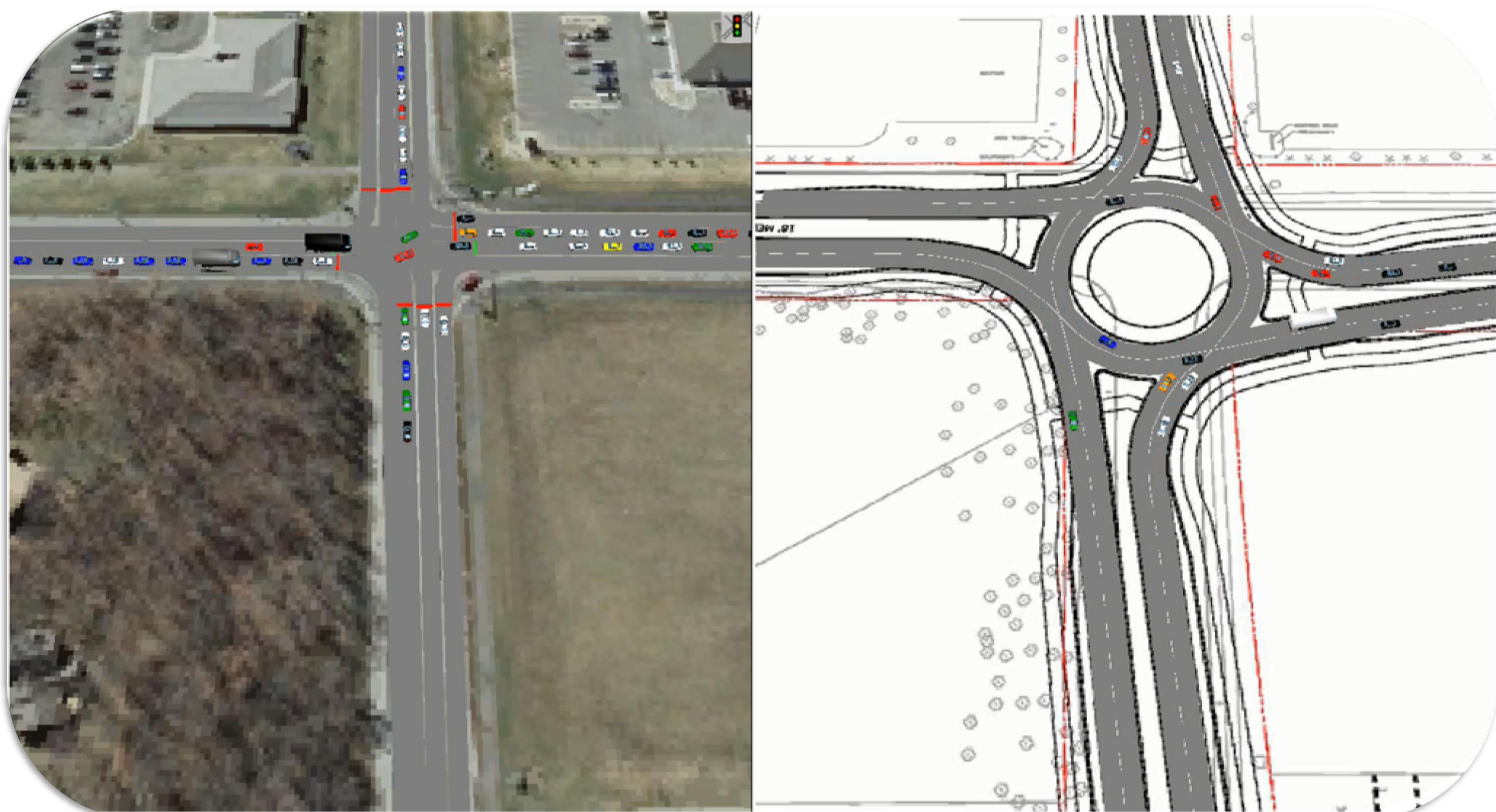
What affects the gaps along the corridor?

The number and length of gaps on the roadway can be affected by the following:

- **Volume** – the more vehicles, the less gaps available. This changes along a corridor because traffic is random in speed and constantly turning on to and off of the corridor.
- **Lanes** – the more lanes (includes through lanes and turn lanes), the more gaps available.
- **Traffic control device and type** – signals and roundabouts can create gaps, however, the further from the traffic control device, the less effect it has. All-way stops can have a metering effect.
- **Driver behavior** – variability in speed can change the number and duration of gaps.

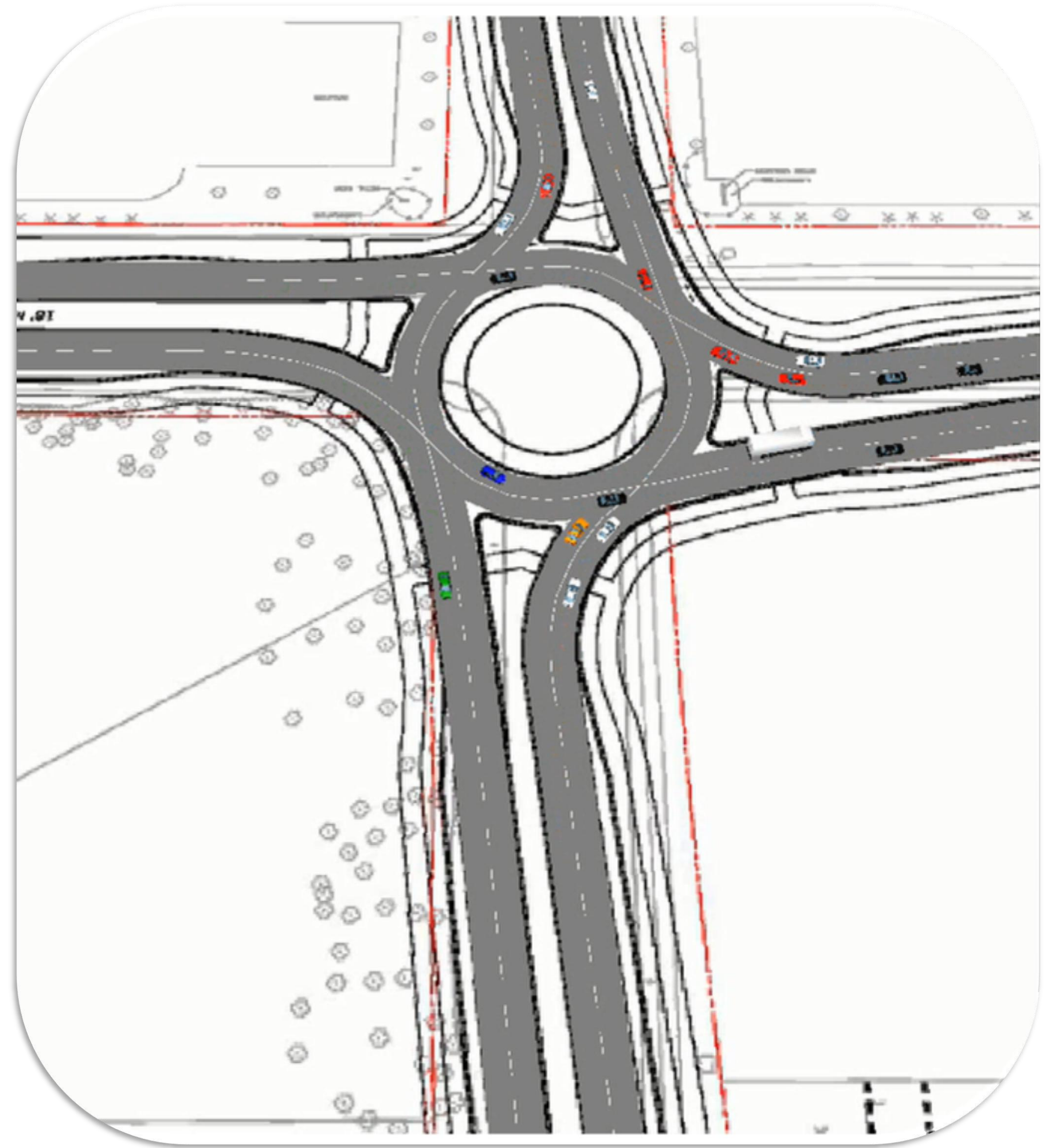
How does the Model Work?

- The model simulates operations on the roadway by accounting for each individual vehicle.
- Each vehicle is unique and has various driver-behavior characteristics such as how aggressive the driver is, how fast they drive, or how closely the driver will follow the next vehicle.
- Individual vehicles also have unique vehicle characteristics. For example, the model accounts for slower acceleration and deceleration of larger vehicles.
- A model “run” estimates traffic conditions for an hour and records the results of both individual vehicles and the system as a whole.
- The model was run 10 times for each scenario and the average of the results are what is reported.



What was Modeled?

The following scenarios were modeled using the VISSIM software:



- **Existing Conditions** – this scenario used the existing roadway and current traffic volume. The results were compared with actual video of the corridor to calibrate the model.
- **Existing with an Improved Signal at CH 60** – existing roadway but additional capacity at the signal at Highway 60 and current traffic volumes
- **Existing with Roundabout at CH 60** – existing roadway but with a roundabout at Highway 60 and current traffic volumes
- **Existing with Roundabout at CH 60 & Signal at 192nd Street** – this scenario used existing roadway with a roundabout at Highway 60 and a signal at 192nd Street and current traffic volumes
- **Existing with Four-Lane & Roundabout at CH 60** – current traffic volumes are used in this scenario with a four-lane divided roadway. This scenario does not include any changes in access except the roundabout at Highway 60.
- **Future** – the future scenario included a four-lane roadway, the roundabout at Highway 60, signals at Jordan Trail/190th Street, 192nd Street, Ipava Avenue and Dodd Road and other access changes with future traffic volumes.


What type of access changes are being considered for the future?


Legend

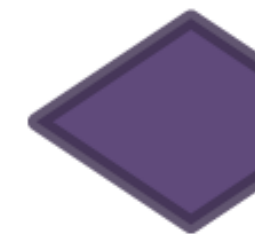
Potential Traffic Control


 Traffic Signal (*contingent on justification*)

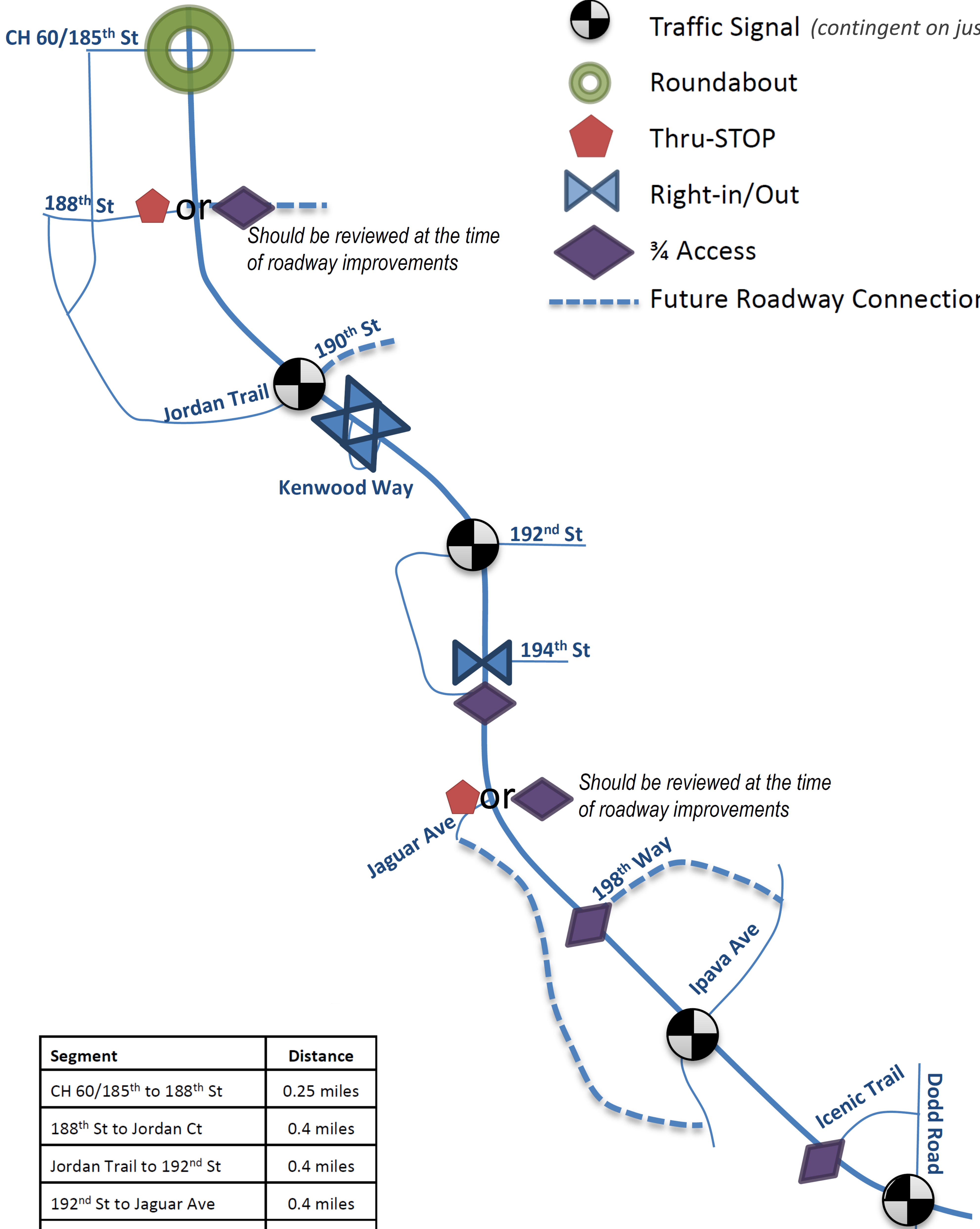
 Roundabout

 Thru-STOP

 Right-in/Out

 3/4 Access

 Future Roadway Connections



Segment	Distance
CH 60/185 th to 188 th St	0.25 miles
188 th St to Jordan Ct	0.4 miles
Jordan Trail to 192 nd St	0.4 miles
192 nd St to Jaguar Ave	0.4 miles
Jaguar Ave to Ipava Ave	0.5 miles
Ipava Ave to Dodd Rd/CR 9	0.5 miles