

Project History | 153rd St at Ravinia Ave Roundabout Phase I Study

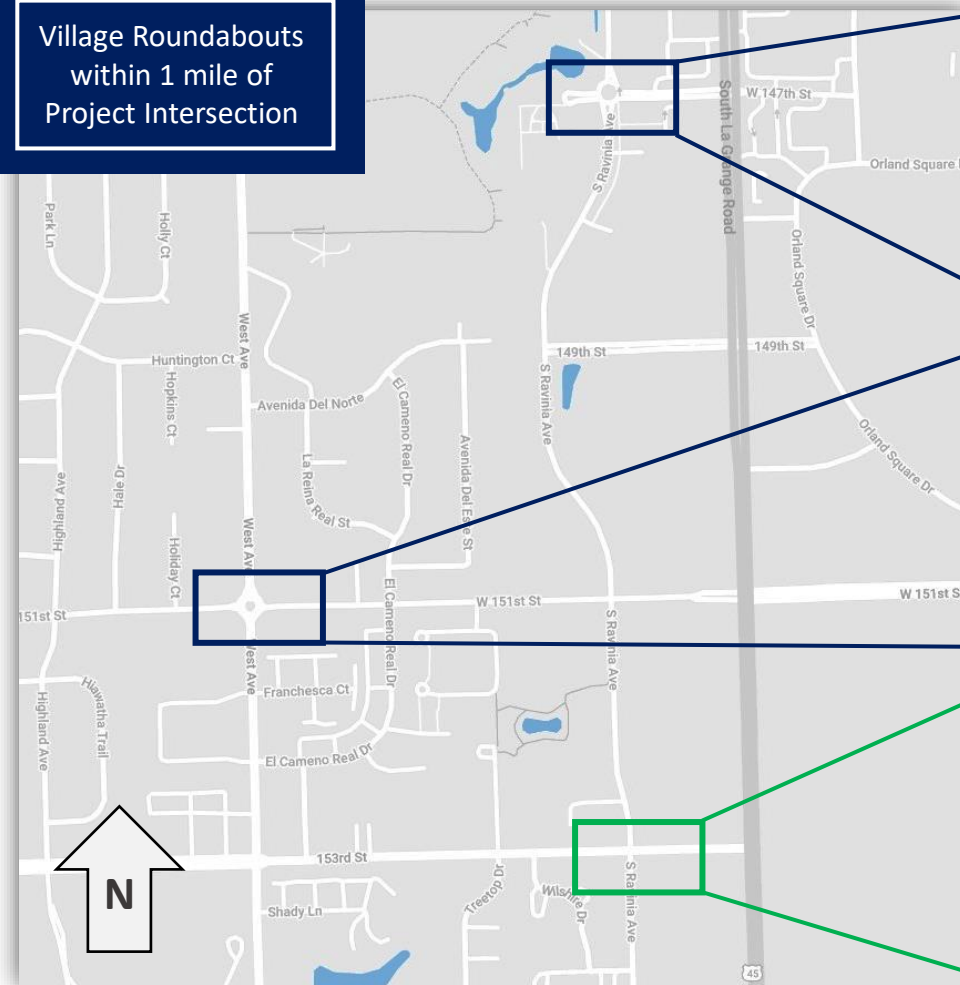
2010 - 2014

- As a result of the LaGrange Road construction, Ravinia Avenue experienced high volumes of cut-through traffic.
- The Village installed a temporary traffic signal in 2013 to improve traffic operations at the 153rd Street and Ravinia Avenue intersection until the construction traffic distribution normalized. The project intersection was in the Village's Strategic Plan to further study and evaluate.
- A strategic 2040 Transportation Plan was developed to identify and evaluate transportation issues throughout the Village. The Transportation Plan provided recommended implementation strategies to help guide the Village for future improvements.

2021- Present

- Village hired V3 to conduct a Phase 1 Preliminary Study for the intersection.
- Similar to the other roundabouts, the Village has been successful in obtaining federal funding for the next phases of the project.
- Village was awarded Surface Transportation Program-Local (STP-L) federal funding for the next phases of the project. The Federal-Village cost-share participation is 80% Federal and 20% Village.
- Anticipated construction cost is approximately \$2.3 Million (in 2022 dollars)
- To utilize federal funds, design approval of the Phase 1 Study is required by IDOT.

Village Roundabouts within 1 mile of Project Intersection



Project Phases & Next Steps

PHASE I
PRELIMINARY ENGINEERING &
ENVIRONMENTAL STUDIES



2021 – 2023

WE ARE HERE



PHASE II
DESIGN ENGINEERING,
CONSTRUCTION DOCUMENTS, &
LAND ACQUISITION/ NEGOTIATIONS



2024 - 2026

PHASE III
CONSTRUCTION



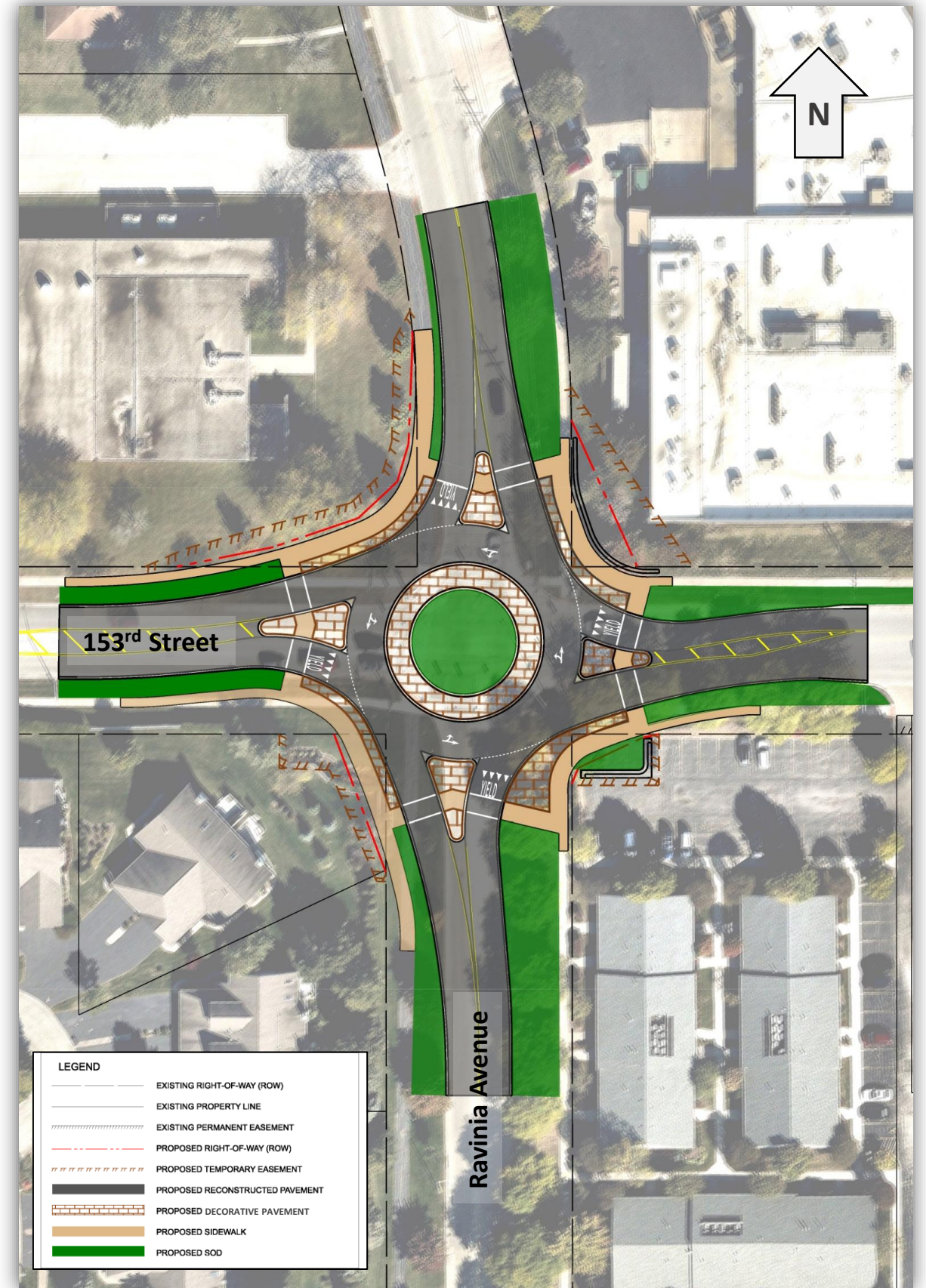
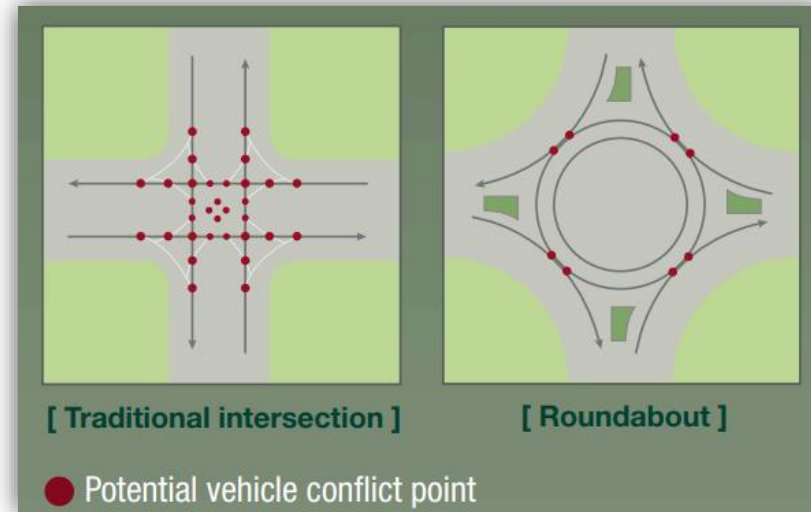
*2026

** The Construction Letting and start date is subject to project readiness, land acquisition, and funding availability.*

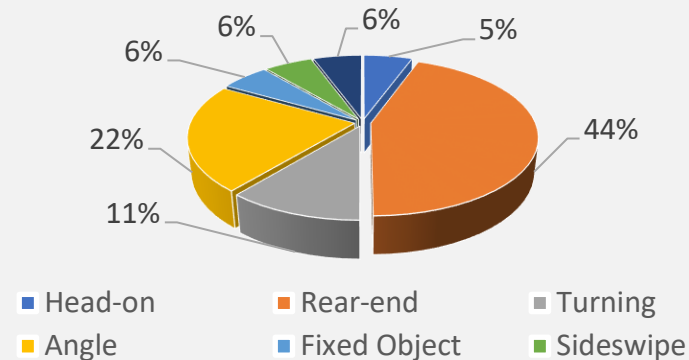
Purpose and Need | 153rd St at Ravinia Ave Roundabout Phase I Study

The purpose of this project is to address safety concerns and traffic flow associated with the signalized intersection.

Signalized Intersection vs. Modern Roundabout



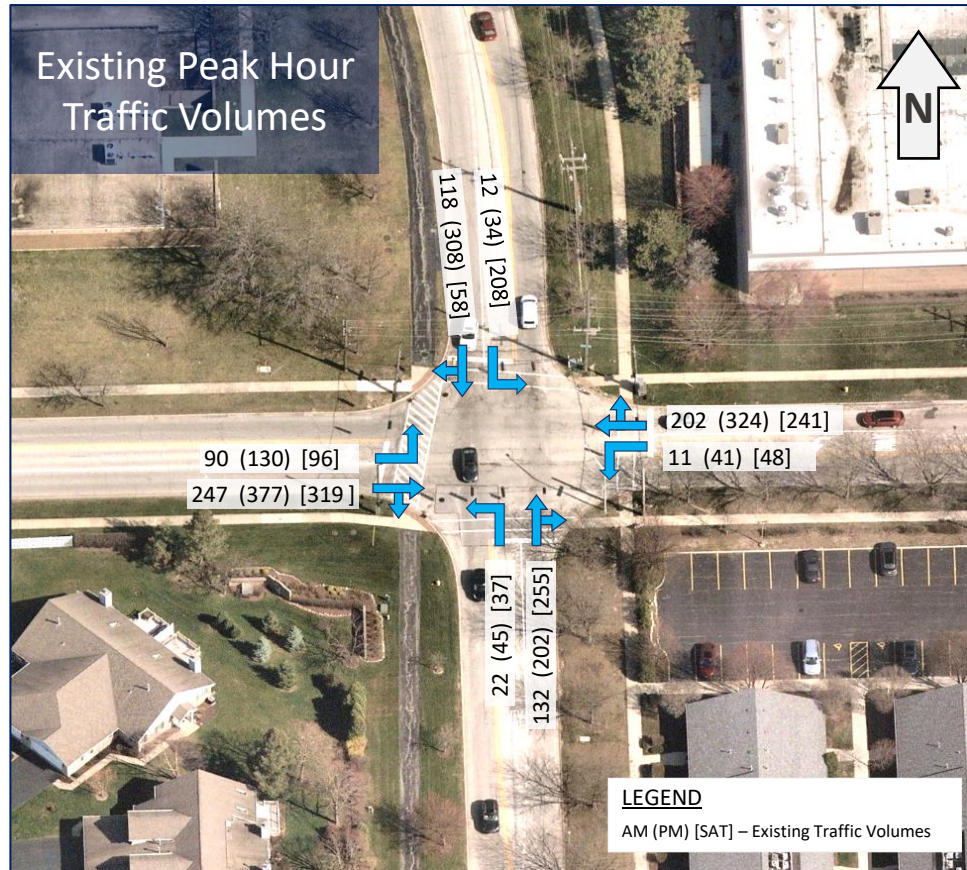
2018-2022 Crashes



- A total of 18 crashes occurred within the last 5 years.
- Per police reports, crashes are primarily attributed to distracted drivers approaching and/or stopped at the intersection.
- Police reports noted vehicles running through yellow and red lights, preceding before the green light, or striking vehicles stopped at the signal.

- **Roundabout Benefits:**
 - Decreases the number of conflict points at the intersection from 32 to 8.
 - Requires drivers to slow down and pay attention.
 - Dangerous angle crashes are less likely
 - Reduces noise, fuel consumption, and air pollution by minimizing vehicular starts and stops.
 - Lower long-term costs due to reduction of hardware maintenance and electricity costs.
 - Allows for more constant traffic flow
- **Roundabout Disadvantages:**
 - Larger footprint (requires land acquisition/right-of-way).
 - Initial higher cost than traditional signalized intersection.

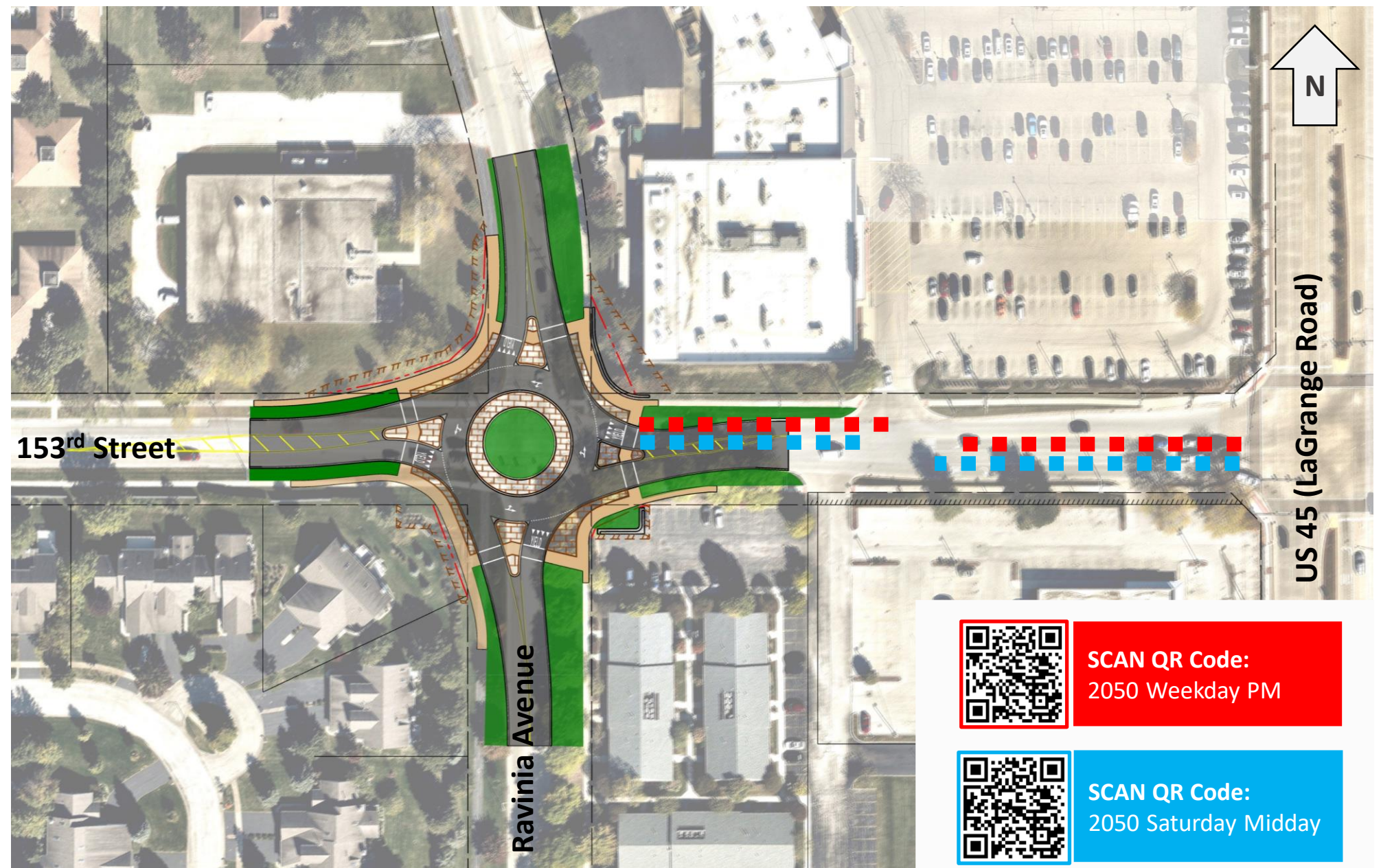
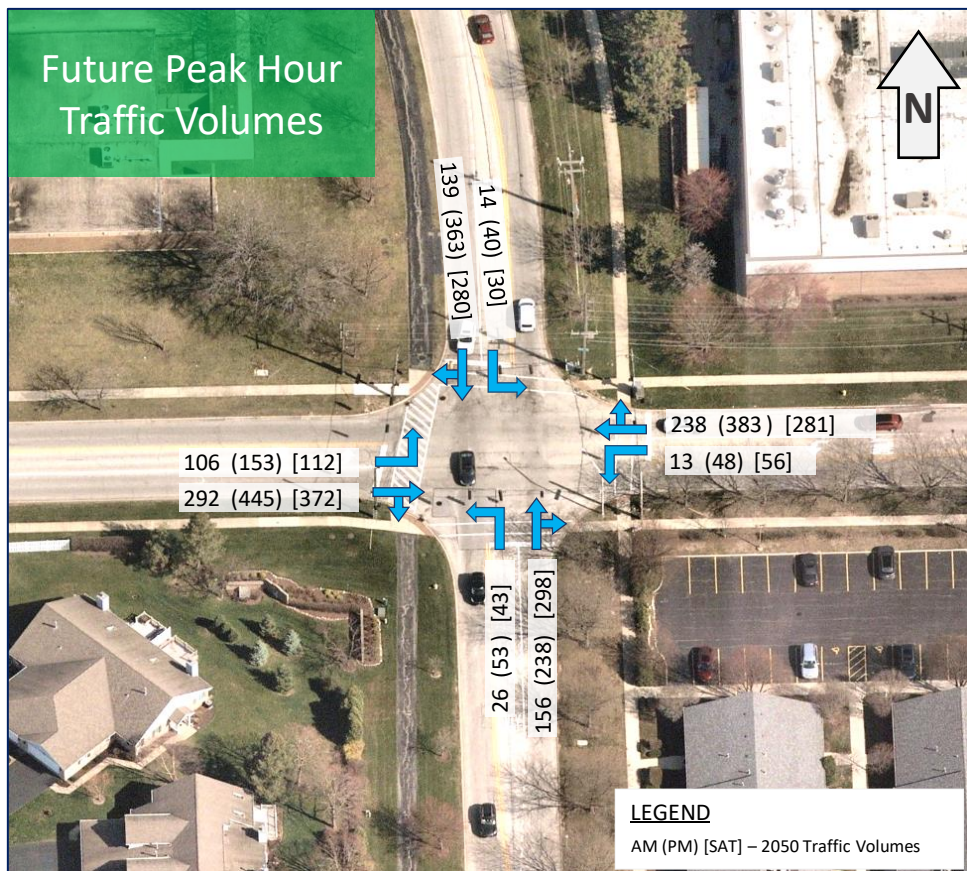
Traffic Modeling | 153rd St at Ravinia Ave Roundabout Phase I Study



Existing and future traffic volume data is illustrated in the graphics to the left. Traffic is expected to increase by approximately 18% by the year 2050.

Future 2050 traffic volumes were modeled between 153rd Street at Ravinia Avenue and 153rd Street and US 45 (LaGrange Road) to verify the traffic flow and operations with the proposed roundabout and signalized intersection.

The graphic below illustrates the anticipated length of vehicular traffic during the weekday PM peak hour and Saturday mid-day peak hour. The results indicate traffic is not expected to back into the roundabout from the 153rd Street and US 45 (LaGrange Road) signalized intersection.



SCAN QR Code:
2050 Weekday PM



SCAN QR Code:
2050 Saturday Middy