

Safety at the M-59/Latson Road Intersection

Livingston County

Introductions

Key Stakeholders

Oceola Township

Livingston County Road Commission

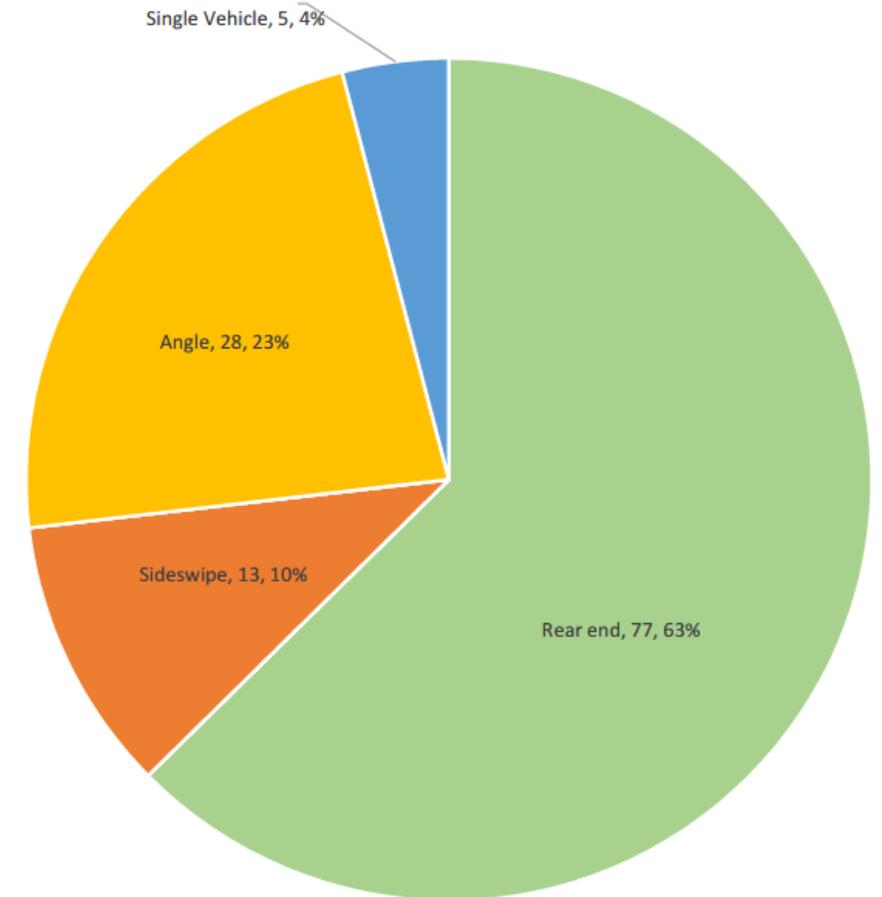
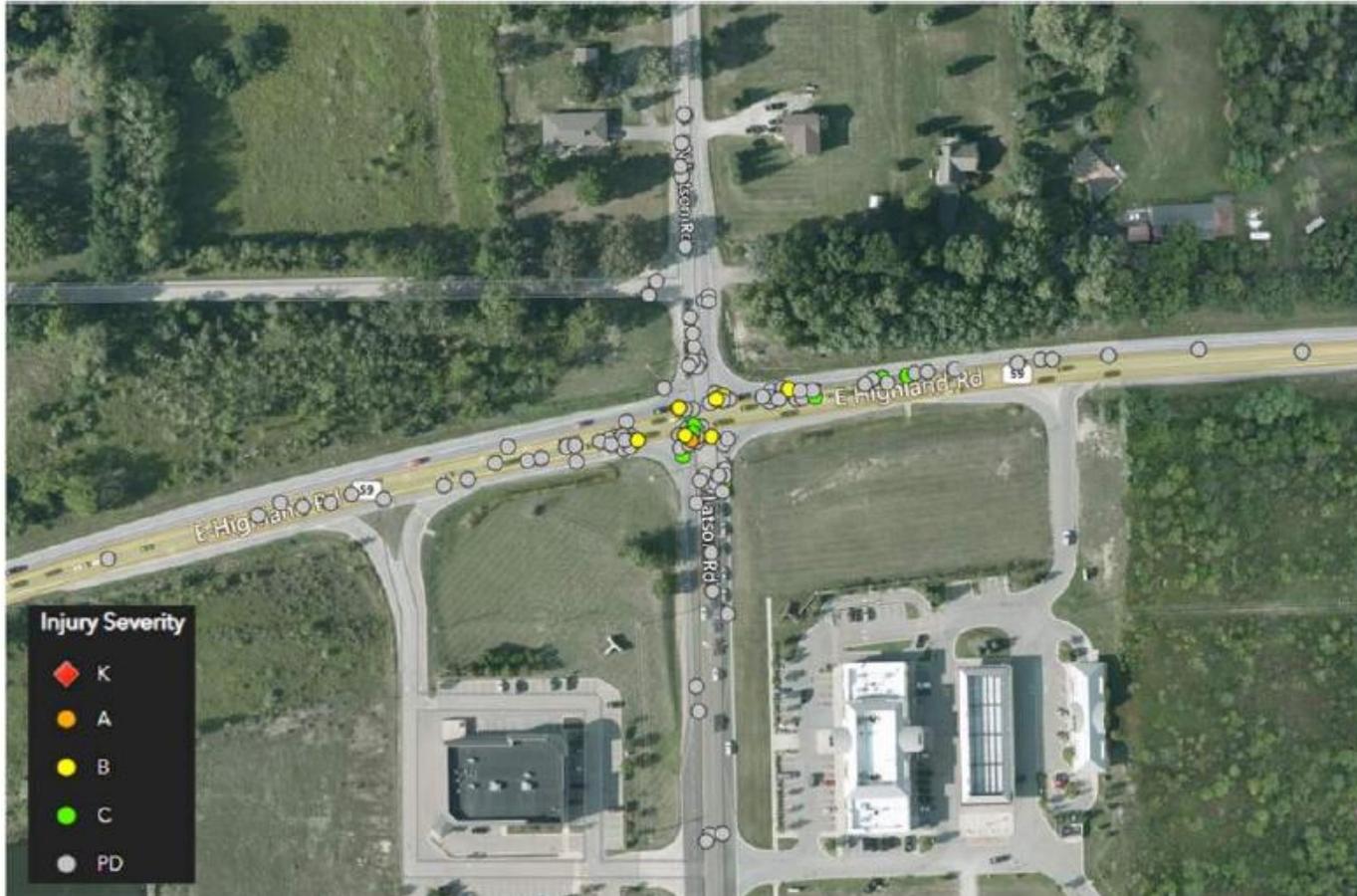
The public

MDOT/FHWA

The Intersection



Safety Concerns

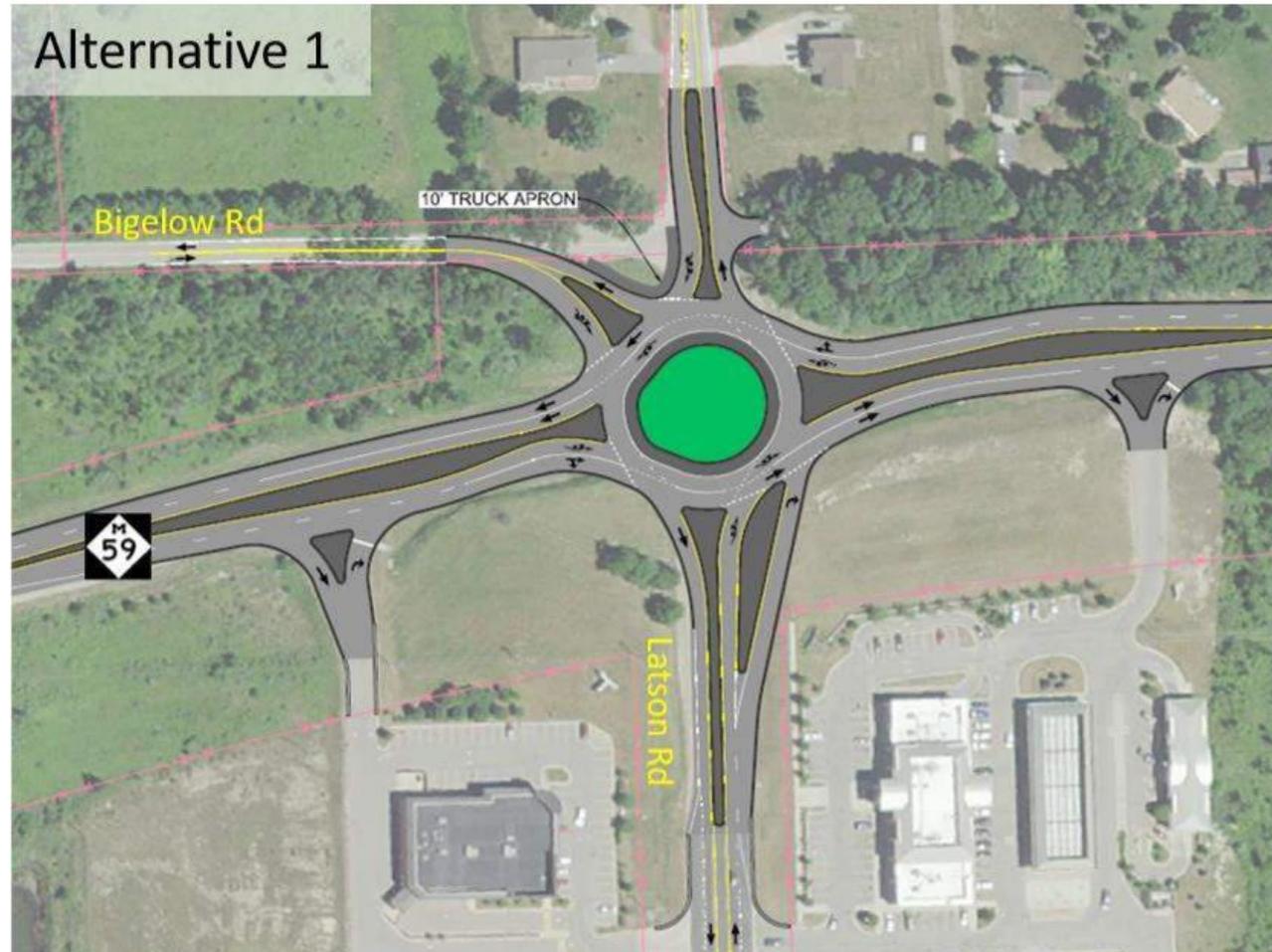


Crash Types and Analysis

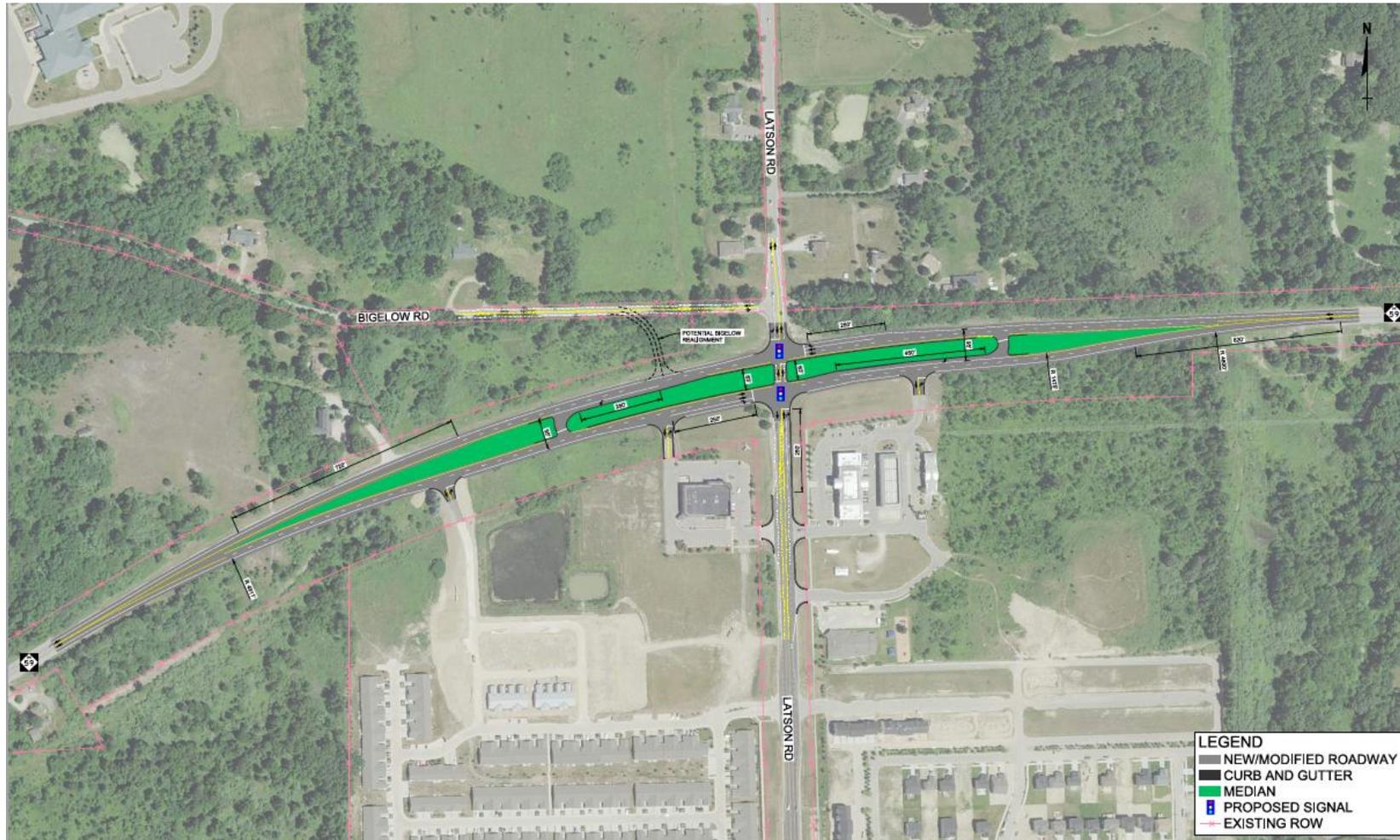
- The majority of crashes at the intersection were rear-end crashes.
- A time of return analysis was performed to identify the safety benefits with two alternatives (boulevard and a roundabout). The crash reduction factors (CRF) include:

Improvement (Alternative)	CRF	Applies To
Roundabout	78% Reduction	Fatal and A-injury Crashes
	57% Reduction	Minor Crashes
Boulevard	20% Reduction	All Crashes

2018 Roundabout Concept



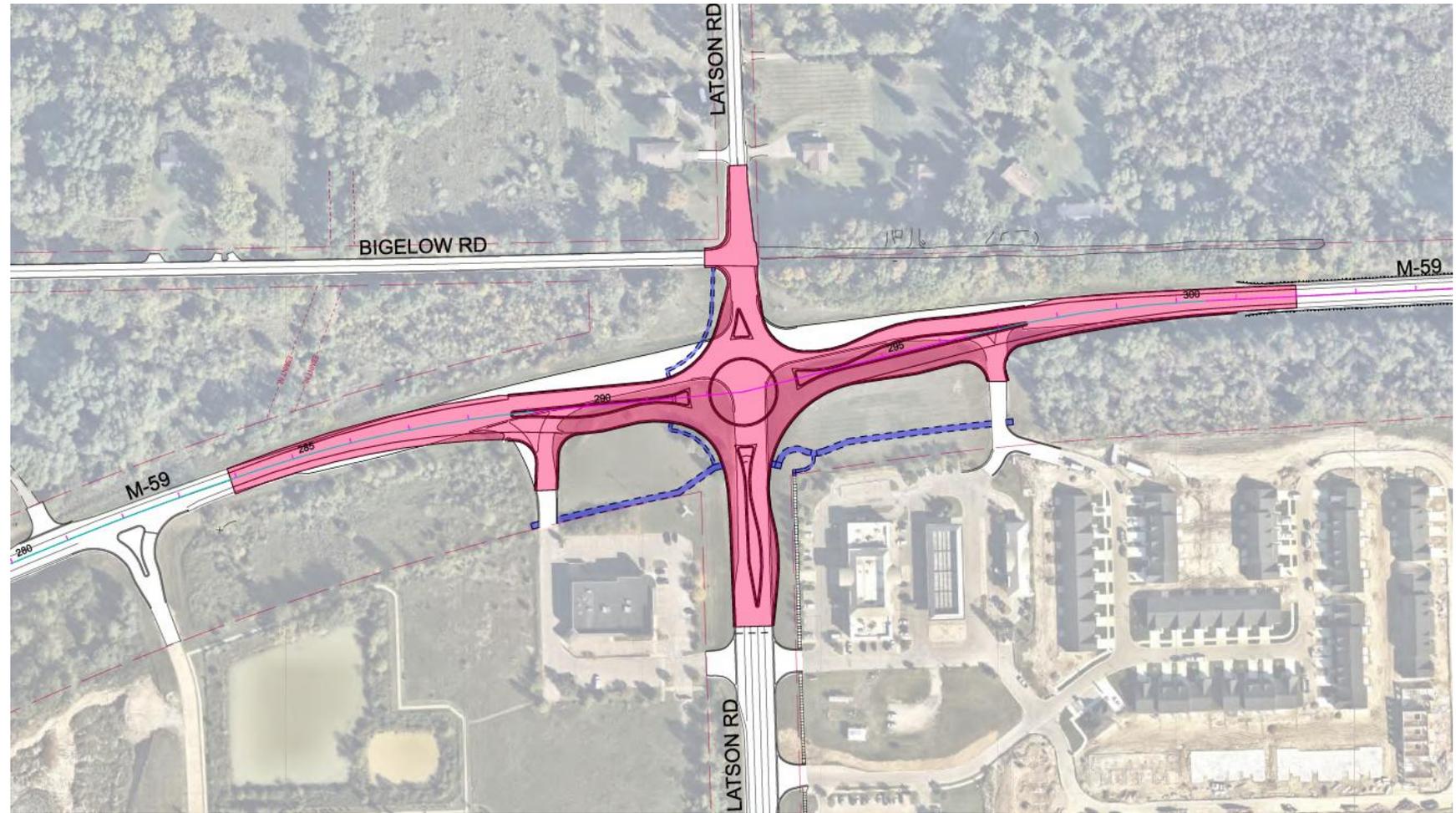
Boulevard Concept (Indirect Left Turns)



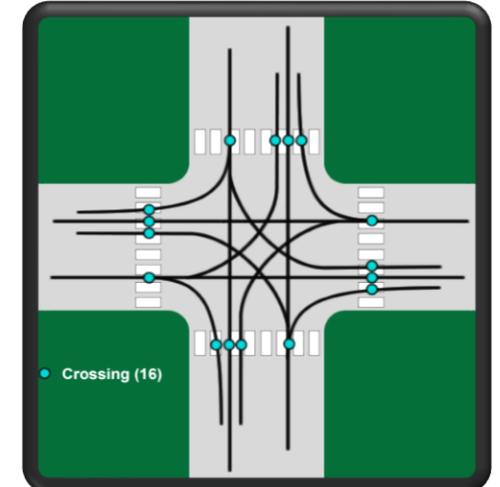
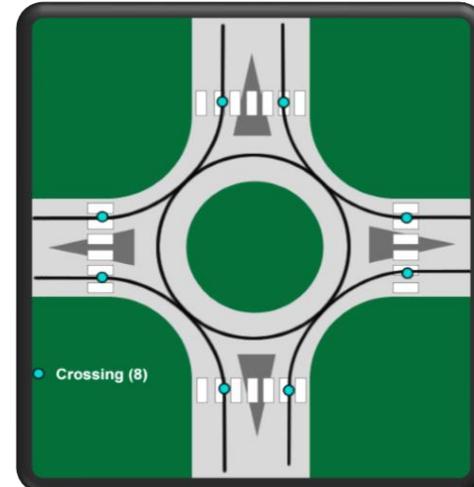
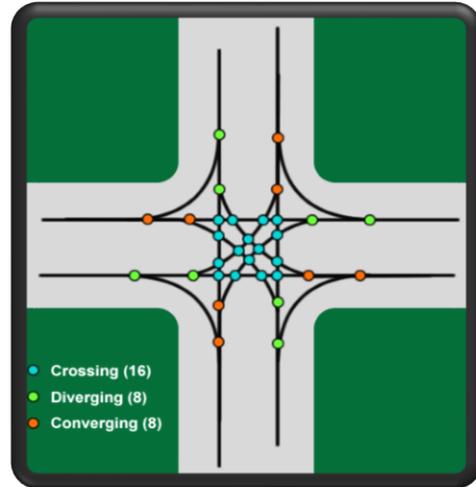
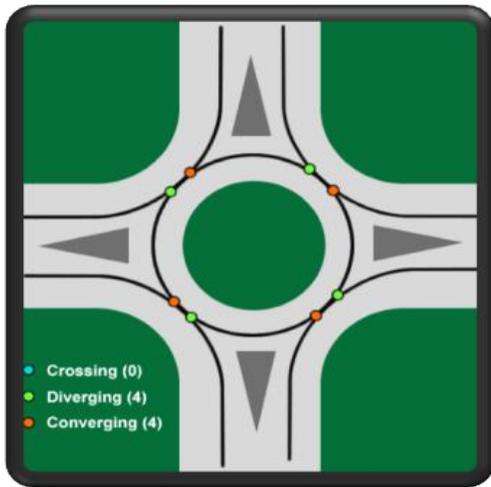
Proposed Roundabout Current Design

Roundabout Quick Facts

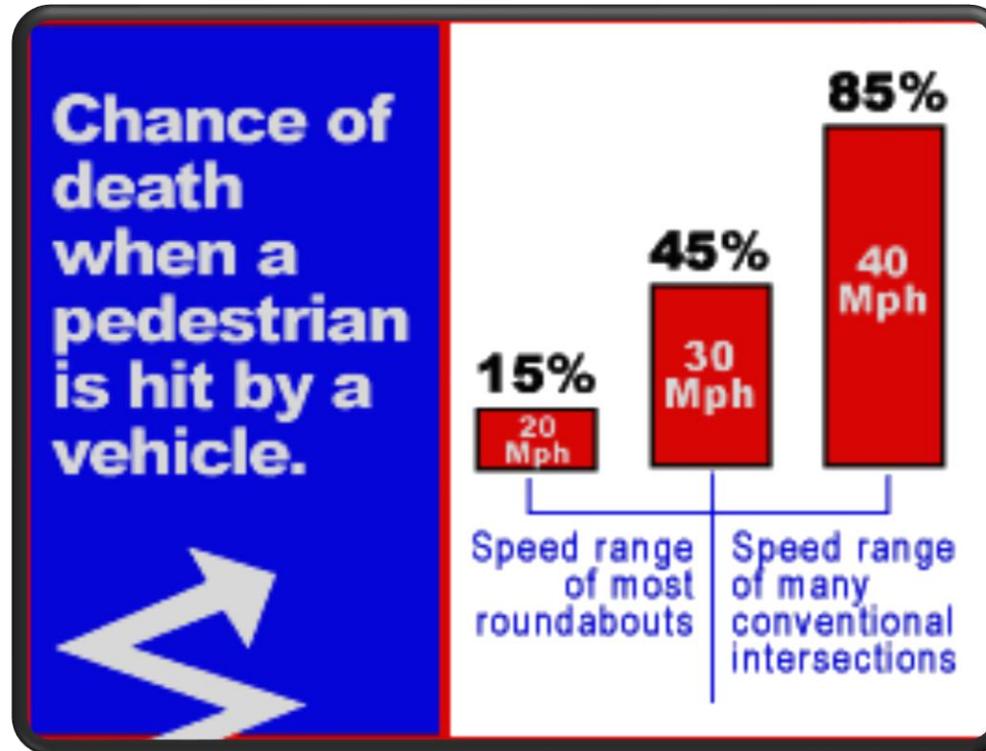
- 180 feet in diameter
- Multi-lane circulating area of 32 feet
- 15-foot truck apron
- 400-foot splitter islands
- Dual entry approaches



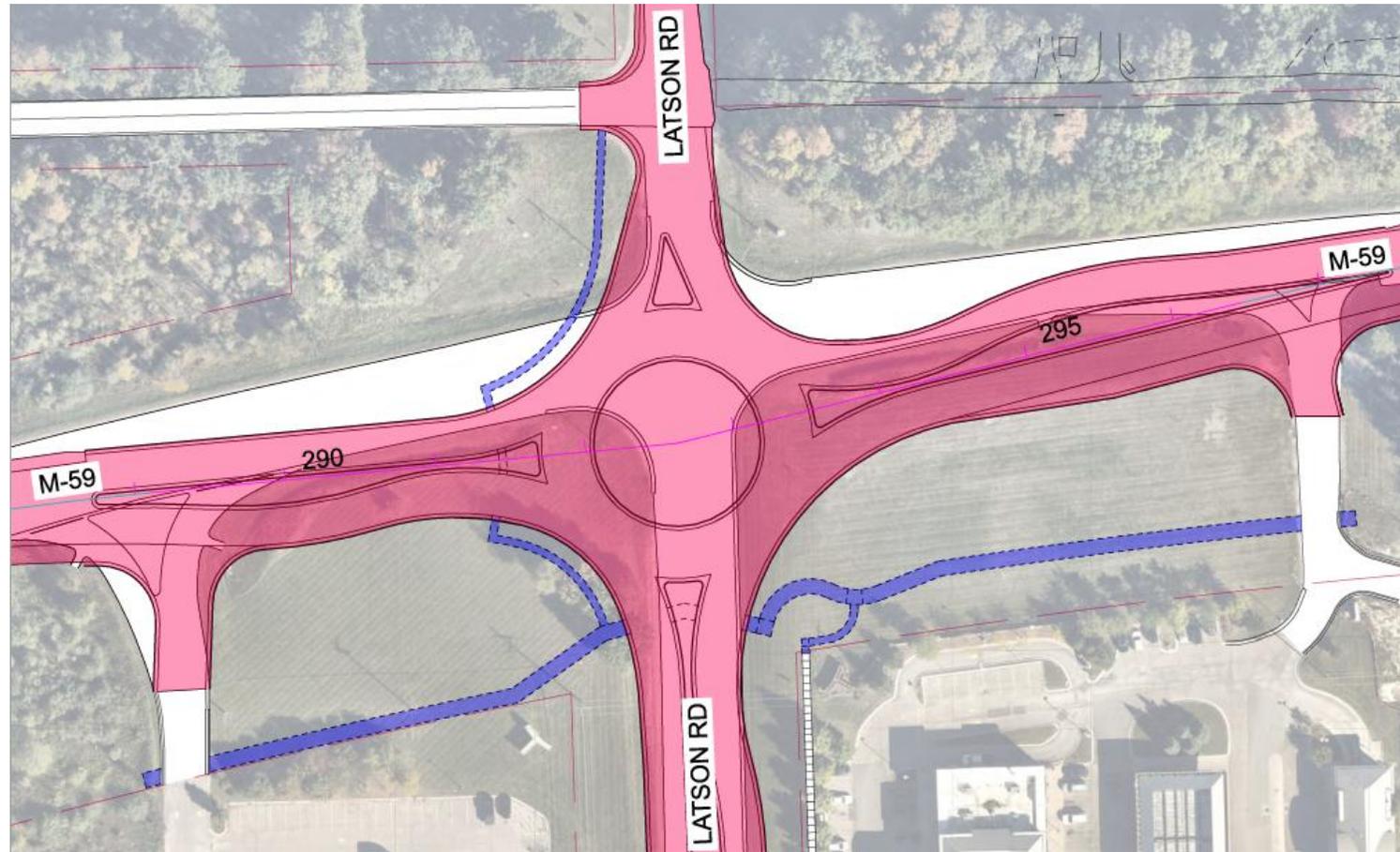
Conflict Points Comparison



Speed and Pedestrian Safety



Sidewalk and Path Considerations



Operational Analysis

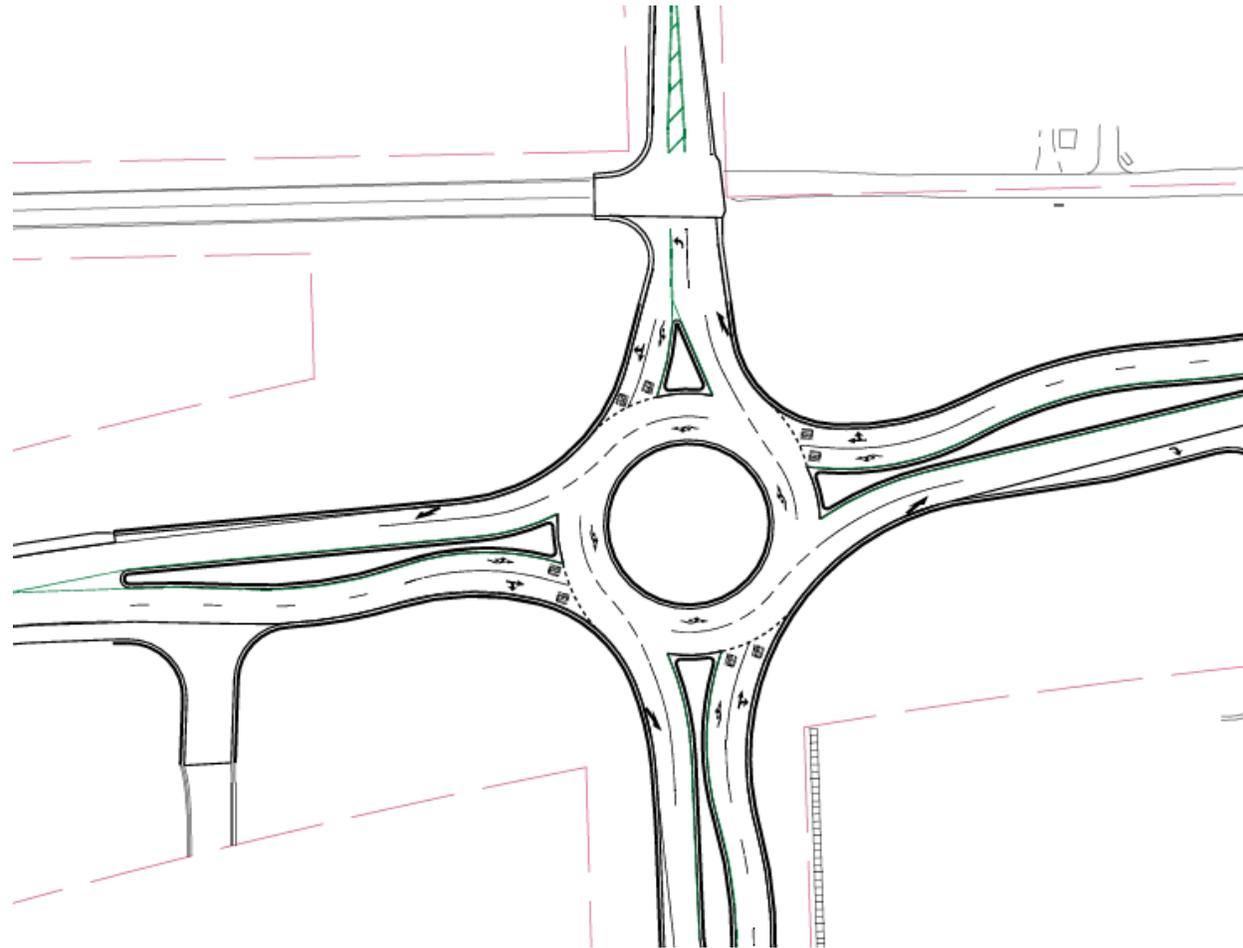
2040 AM Peak - 60-Minute Interval - 85% Confidence Level - Daylight Conditions

Leg Description	Delay (Seconds)	95% Queue (Vehicles)	Level Of Service (LOS)
Southbound Latson Road Approach	12.2	5	B
Eastbound M-59 Approach	7.5	4	A
Northbound Latson Road Approach	6.8	2	A
Westbound M-59 Approach	7.3	4	A

2040 PM Peak - 60-Minute Interval - 85% Confidence Level - Daylight Conditions

Leg Description	Delay (Seconds)	95% Queue (Vehicles)	Level Of Service (LOS)
Southbound Latson Road Approach	9.9	3	A
Eastbound Latson Road Approach	8.1	5	A
Northbound Latson Road Approach	11.4	7	B
Westbound M-59 Approach	9.3	5	A

Proposed Pavement Markings



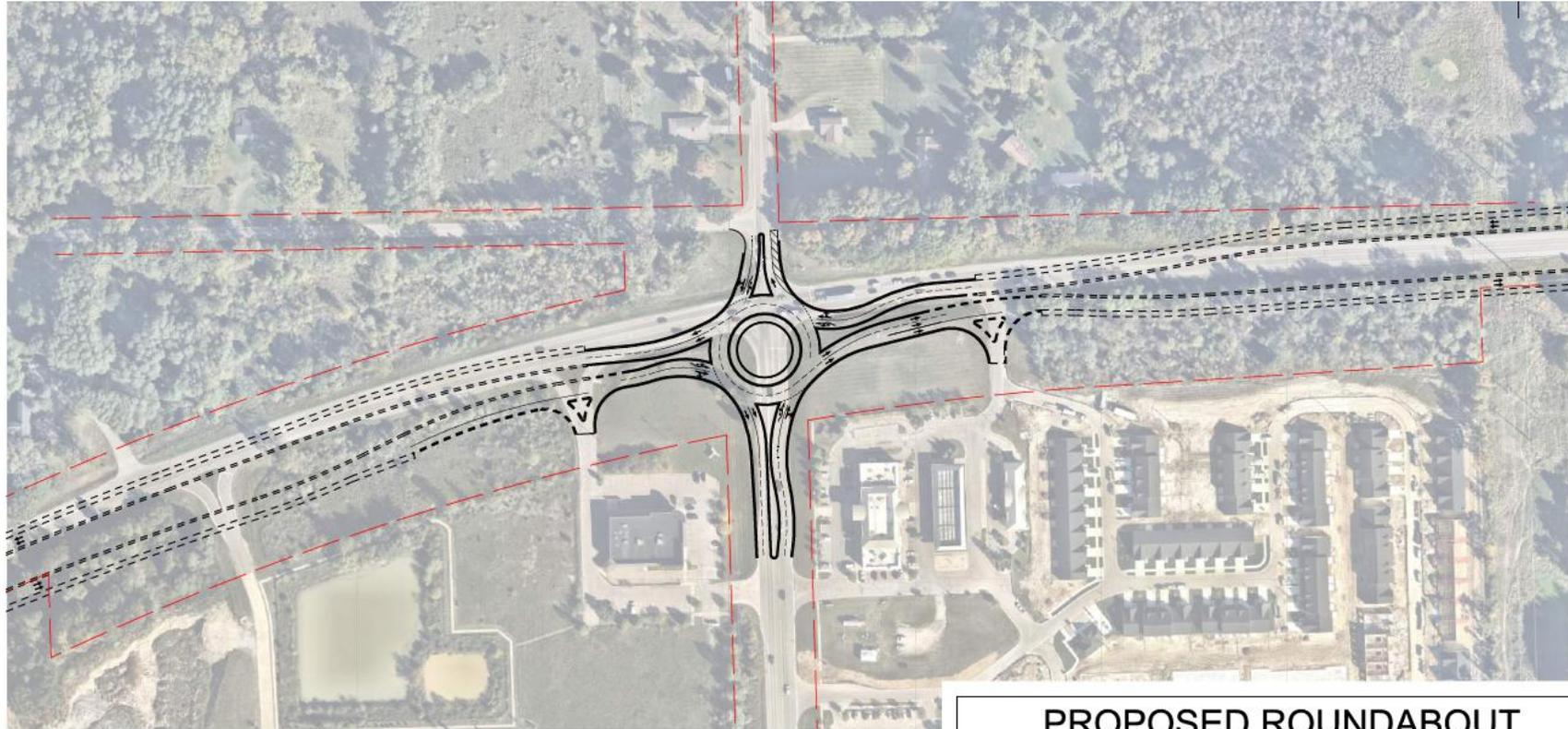
Roundabout Designed for Trucks



Cost Comparison

Benefits	Roundabout	Boulevard
Annual Operational Benefits	\$284,9047	\$228,5682
Annual Safety Benefits	\$141,819	\$170,220
Total Annual Benefits	\$2,990,866	\$2,455,902
Estimated 20-Year Benefit	\$59,817,311	\$49,118,043
Costs		
Initial Construction Costs	\$4,463,000	\$7,466,000
Benefit-Cost Ratio		
B/C Ratio (One Year)	0.7	0.3
B/C Ratio (20 Years)	13.4	6.6

Future Potential Tie Into Boulevard



PROPOSED ROUNDABOUT
SHOWING CONCEPTUAL TIE-INS TO
2009 BOULEVARD CONCEPT

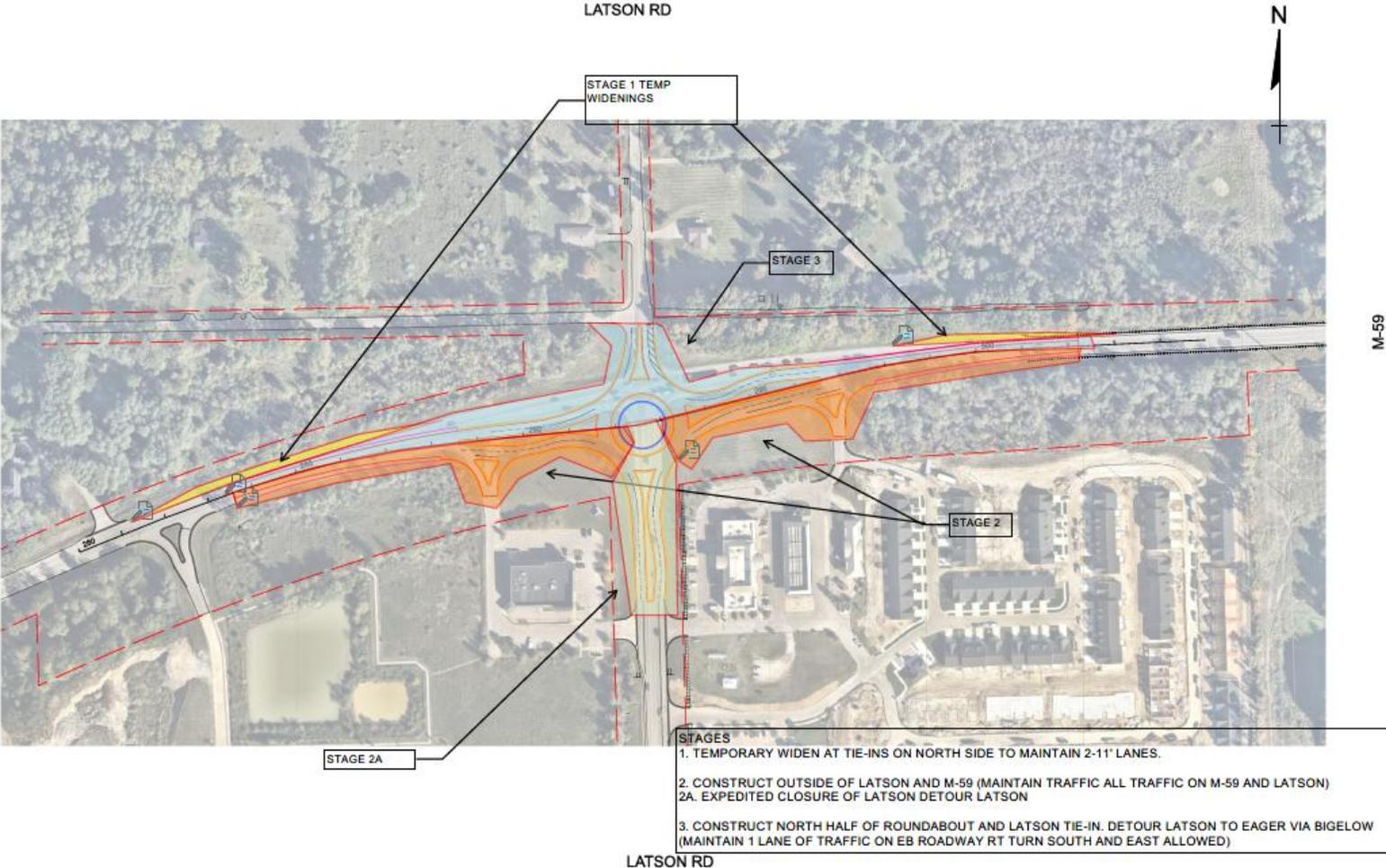
LATSON RD

M-59

Maintenance of Traffic

The roundabout will be built using staged part-width construction.

Construction is anticipated to take place in 2027.



Schedules and Cost Estimates

- **Tentative Schedules**

- Public meeting to introduce concept (spring 2026)
- Survey of the intersection (completed)
- Environmental classification (in process)
- Plan completion (early fall 2026)
- Letting (December 2026)
- Construction (spring 2027)

- **Approximate cost**

- \$5.1 million (includes preliminary and construction engineering costs)

Questions and Comments