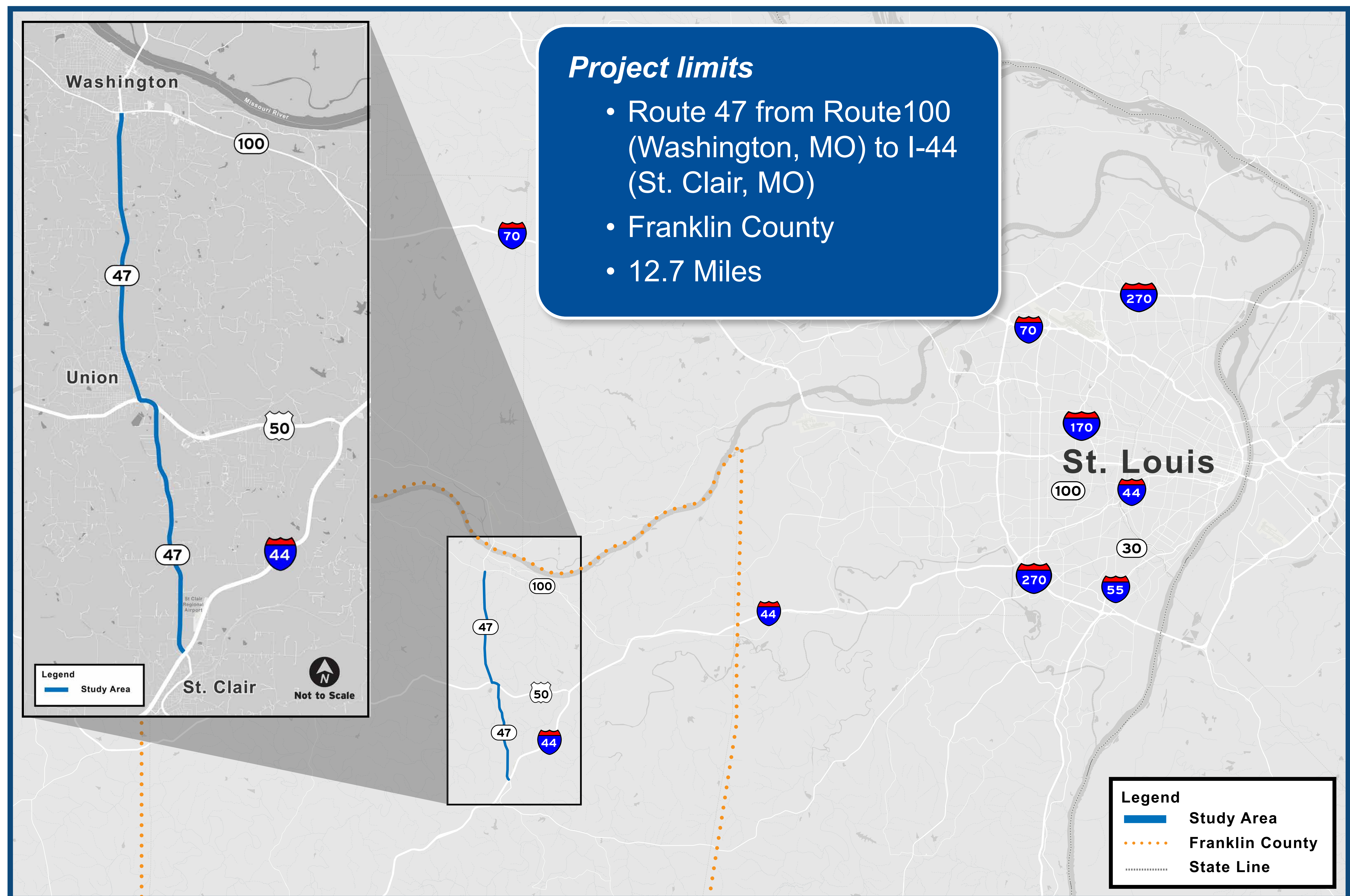


# MoDOT Route 47 Project Location Overview



*Project location in relation to the St. Louis metro area*





# Funding and Construction / Conceptual Study

**\$78.1M Programmed for Construction in FY2028**

**The Study will seek to:**

- Identify improvements to meet the project goals within the Construction Budget
- Identify any additional improvements in excess of the Budget
- Recommend a project delivery method



## IDENTIFY ISSUES



**Safety and Mobility for All Users**



**Intersections and Access Management**



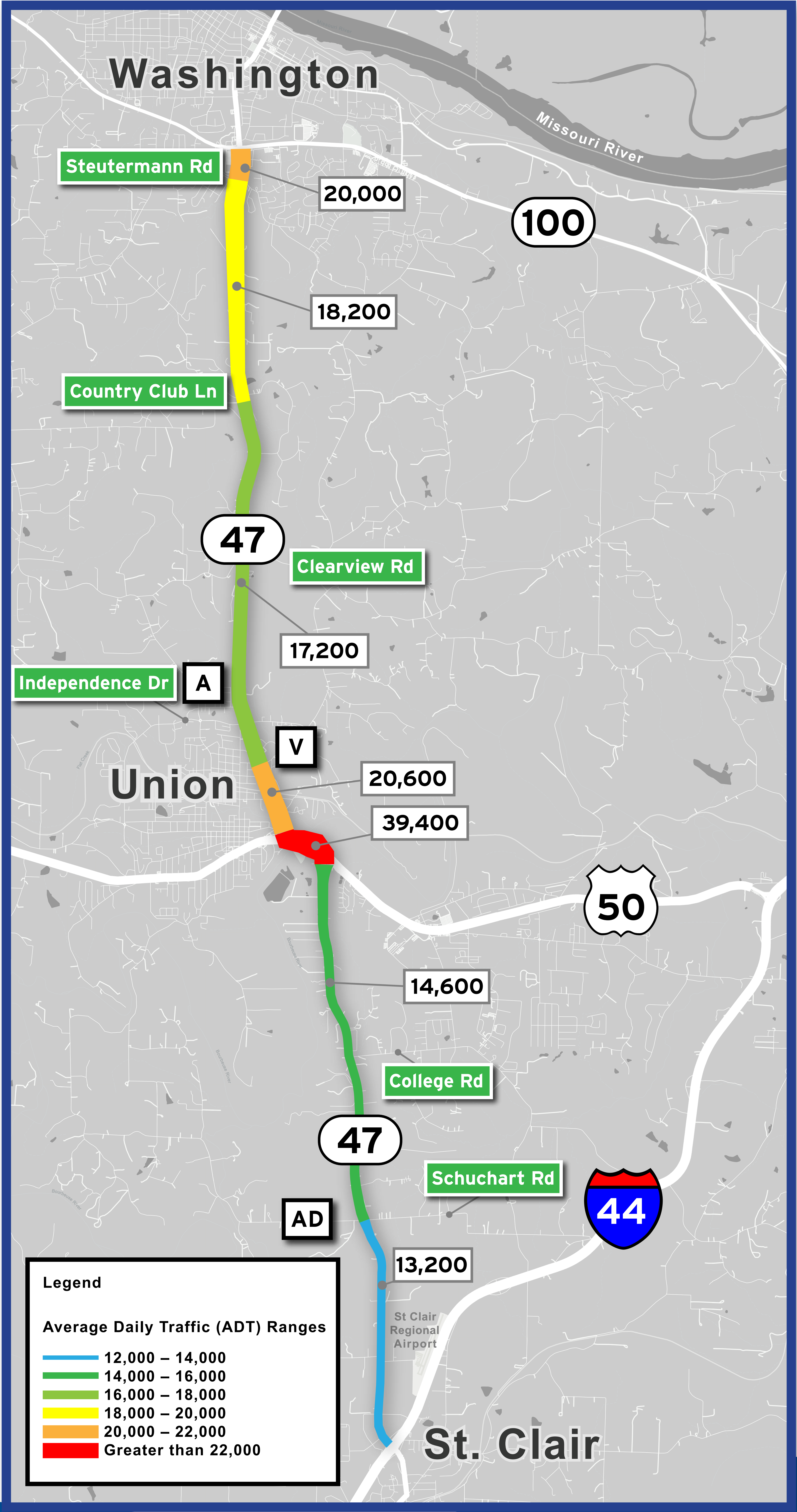
**Condition of Existing Infrastructure**



**Stakeholder Input**



# Route 47 Average Daily Traffic (ADT)



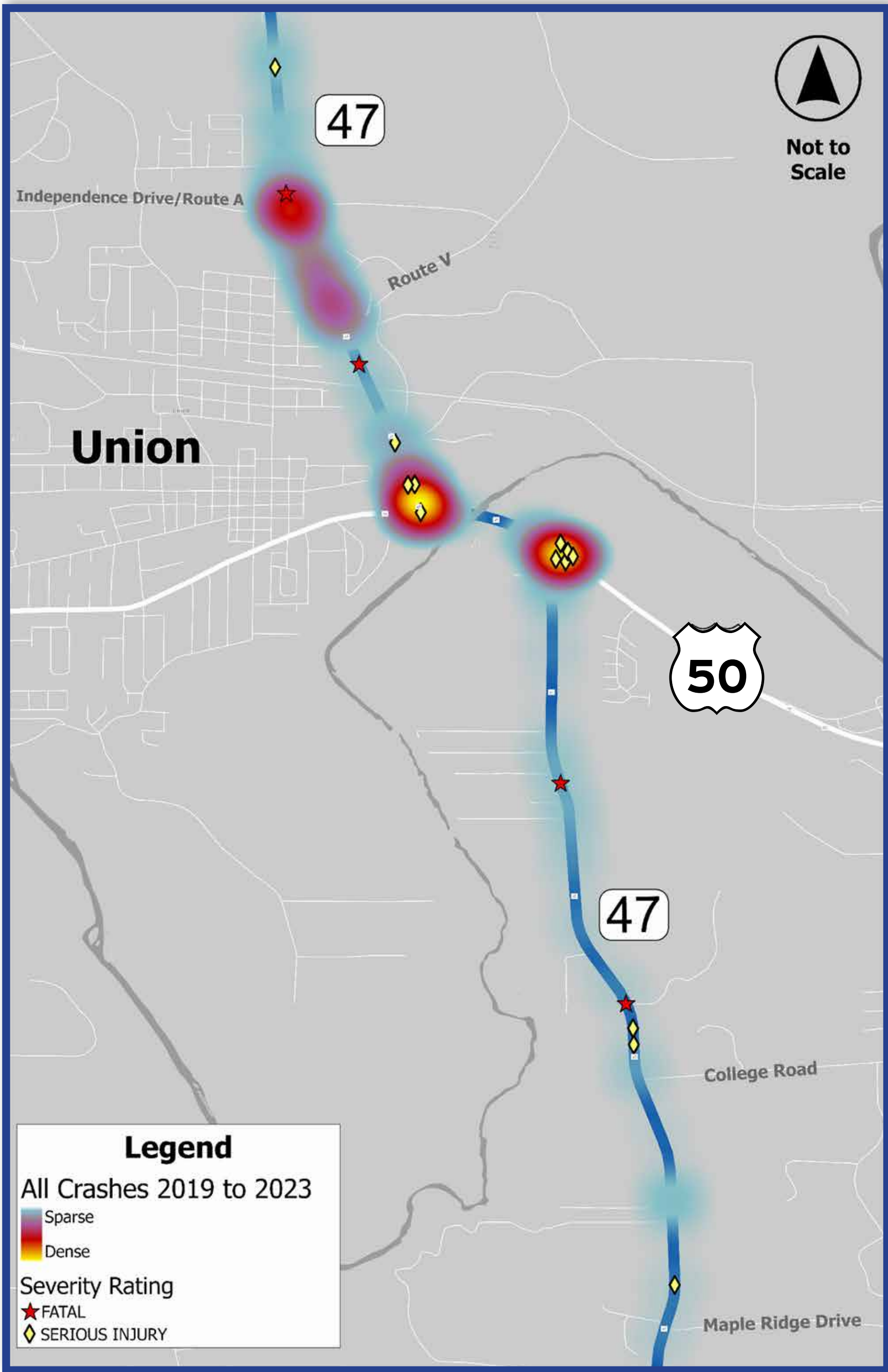


# Route 47 Crash Information

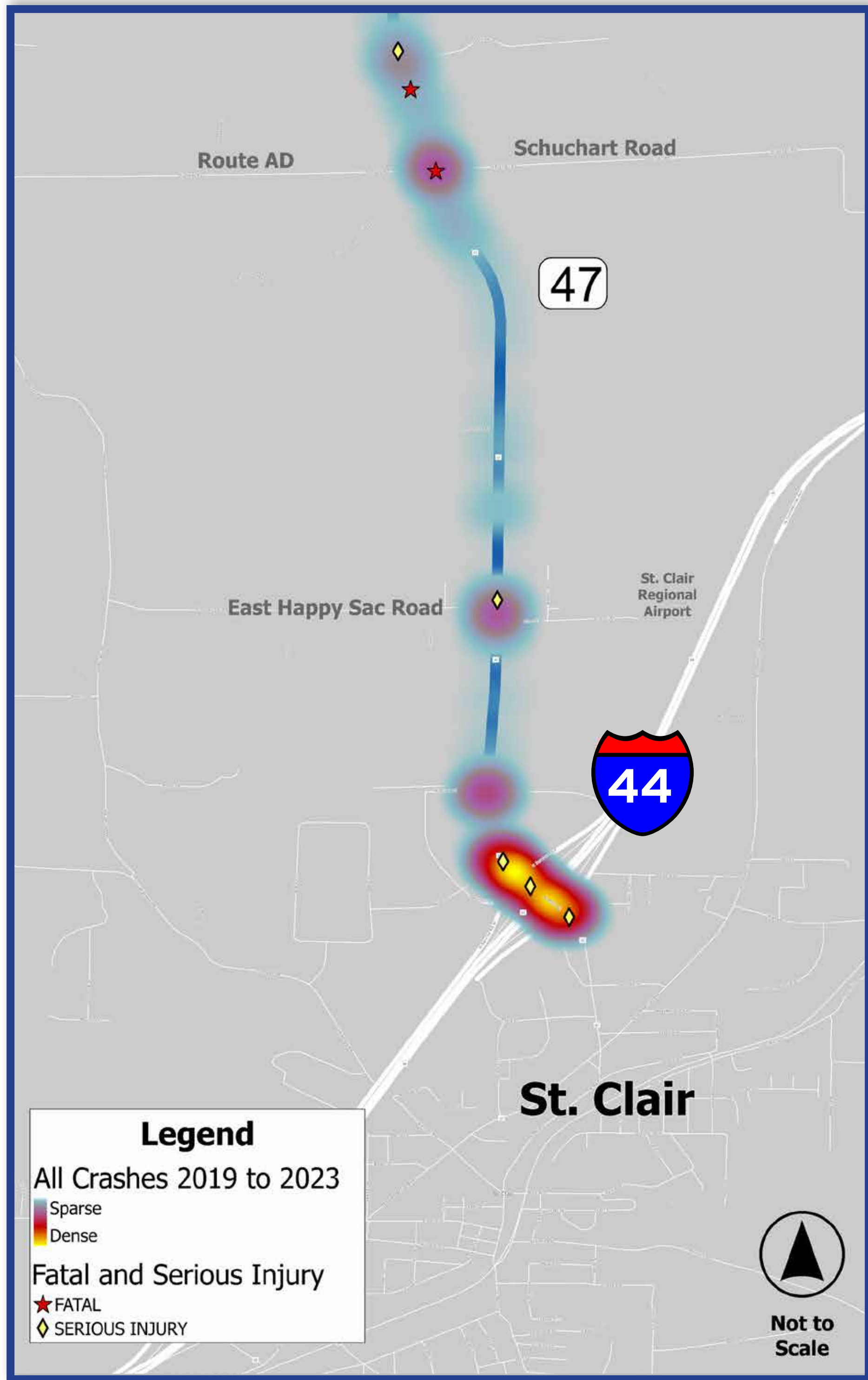
Washington to Union



Route 47 & US-50

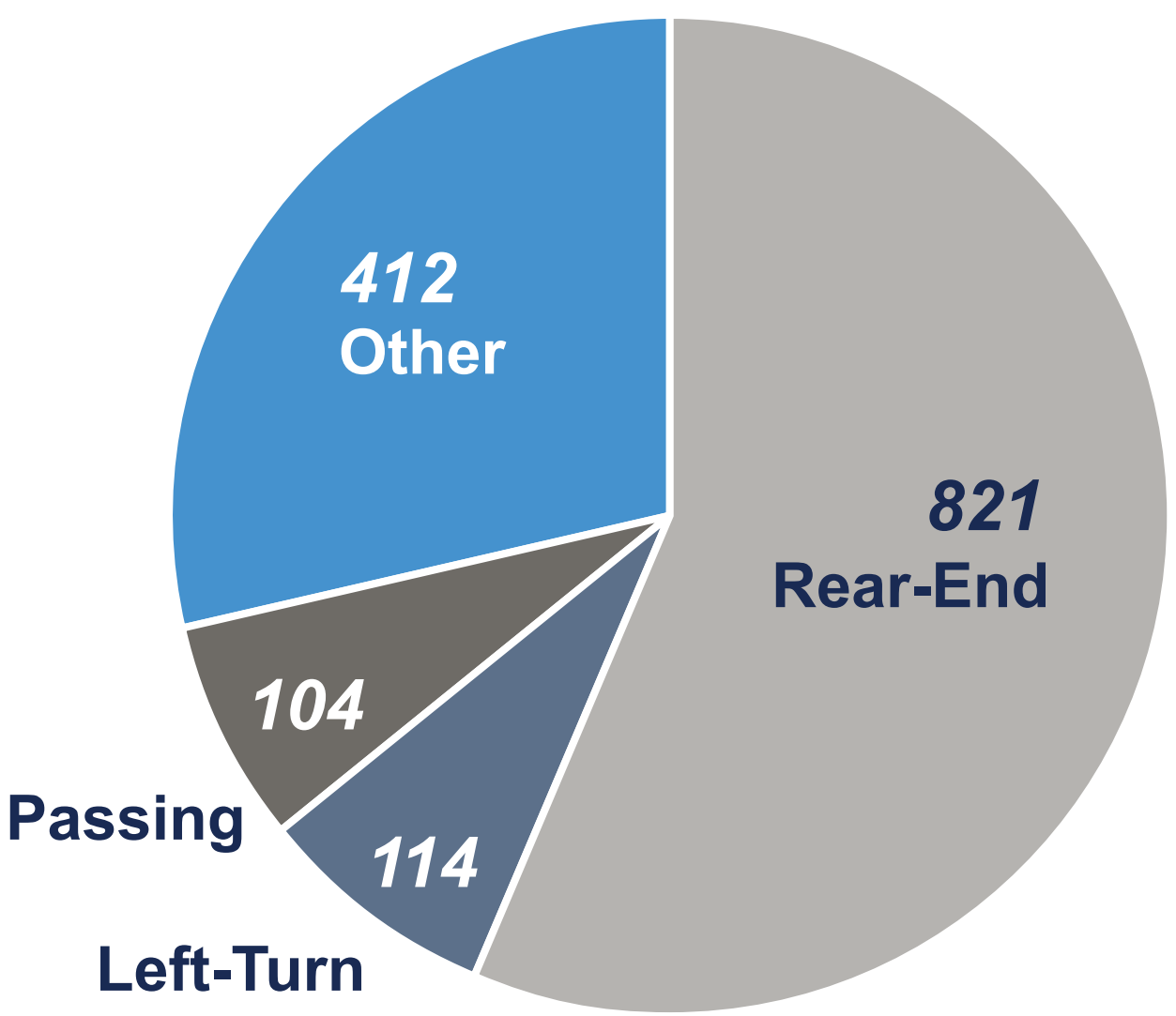


Union to St. Clair



All Crashes  
2019–2023

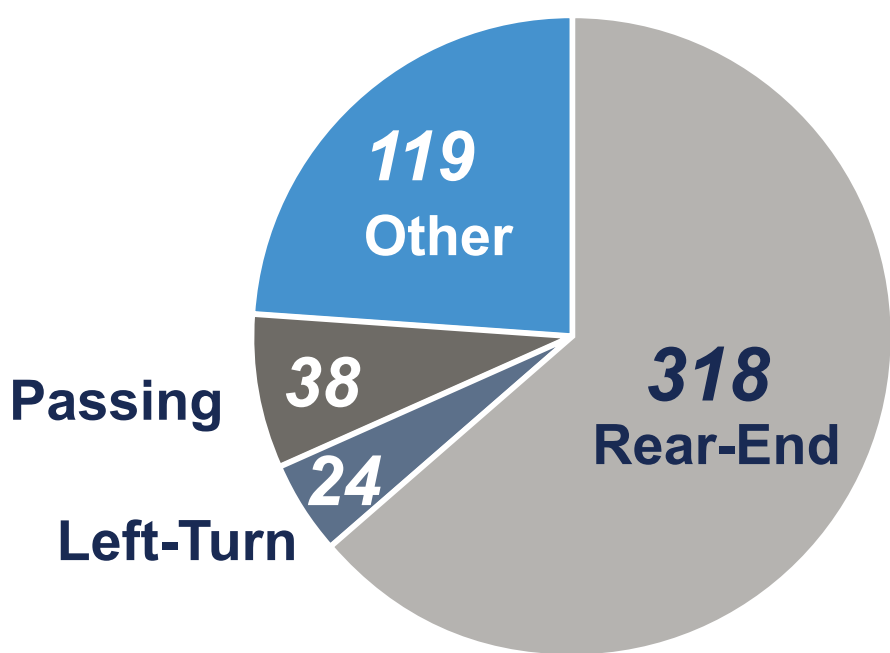
Crash Severity	Count	Percentage
Fatal	7	0.5%
Serious Injury	29	2.0%
All Other Crashes	1415	97.5%
Total	1451	



Northern Segment

Crash Severity	Count	Percentage
Fatal	1	0.2%
Serious Injury	11	2.2%
All Other Crashes	487	97.6%
Total	499	

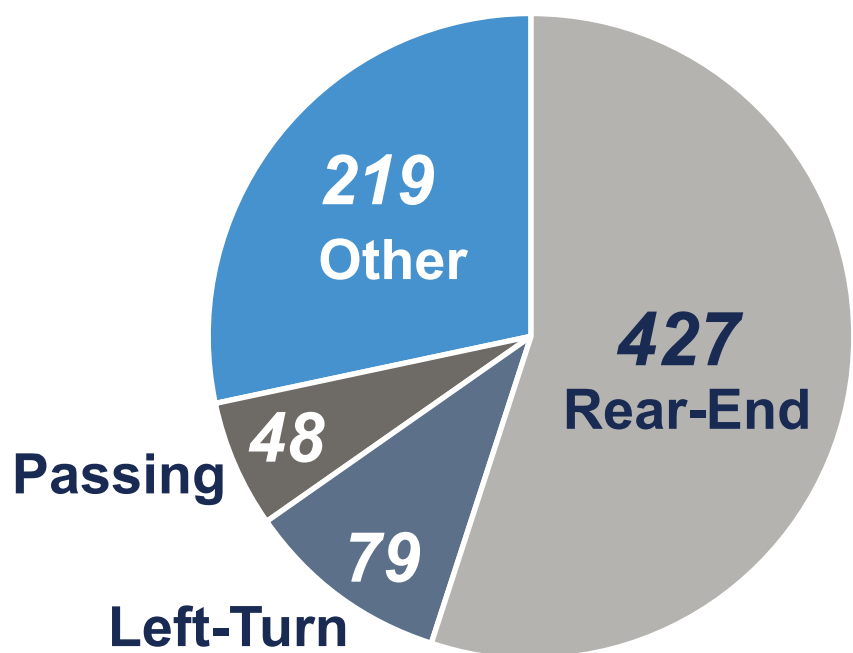
Crash Type



Central Segment

Crash Severity	Count	Percentage
Fatal	4	0.5%
Serious Injury	13	1.7%
All Other Crashes	755	97.8%
Total	773	

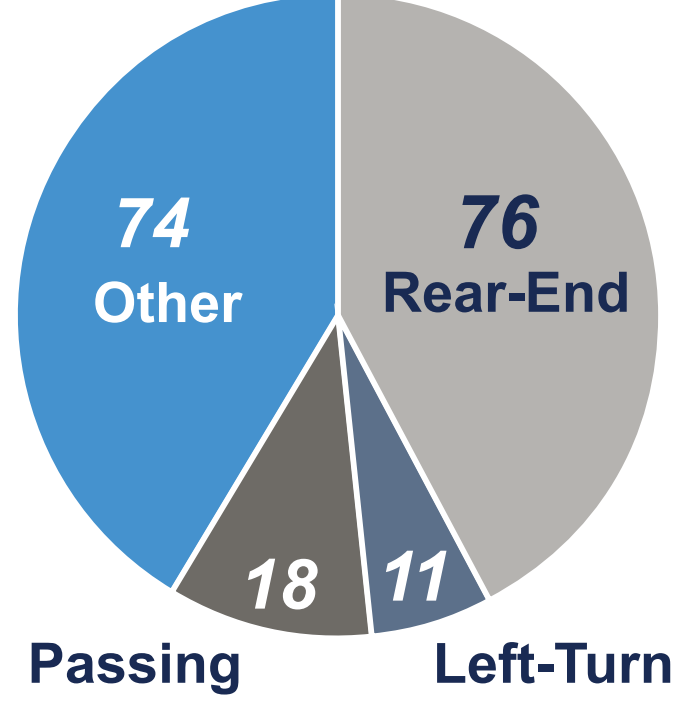
Crash Type



Southern Segment

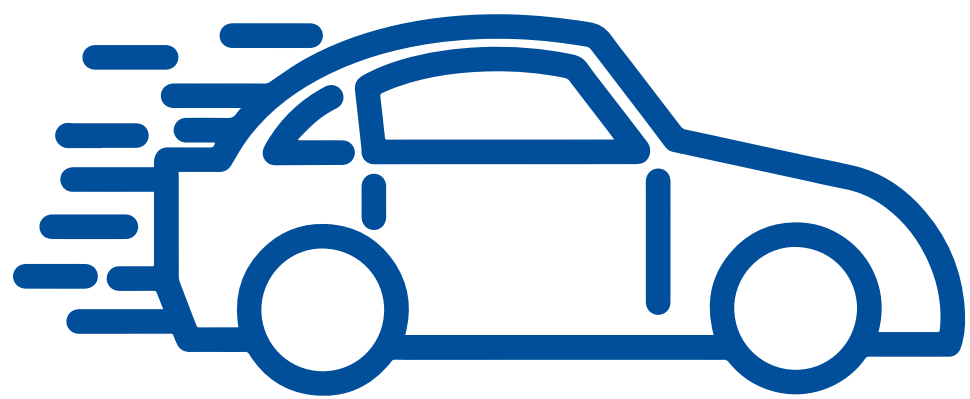
Crash Severity	Count	Percentage
Fatal	2	1.1%
Serious Injury	5	2.8%
All Other Crashes	172	96.1%
Total	179	

Crash Type






# The Majority of Drivers Speed on MO-47!



The project team conducted traffic studies to understand the average speeds of the corridor. While there is congestion occurring during morning and afternoon peak hours, drivers are speeding during non-peak hours that causes safety concerns.



Most serious/fatal crashes involve speed + distraction; lower speeds cut impact energy and stopping distance.






Lower speeds improve driver field of view and reduce speed differentials resulting in fewer and less severe crashes.

Washington

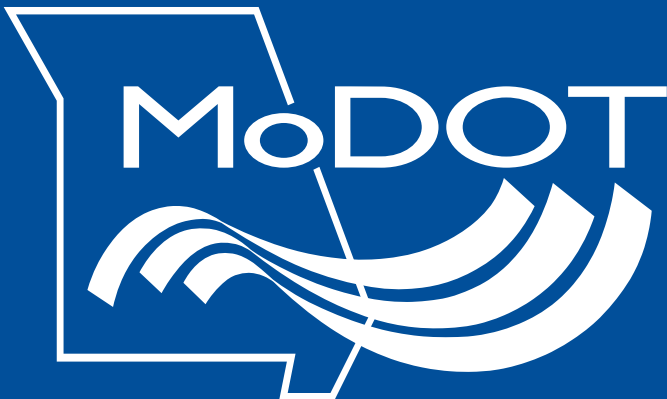
Union

St. Clair

Location	Existing Posted Limit (mph)	Majority of Drivers (mph) *non-peak hour	Miles Per Hour Over Posted Speed Limit
North of Woodland Rd		62	8 mph
South of Forest Hills Drive		65	10 mph
South of Self Storage		70	15 mph
Missouri Eastern RR		55	10 mph
US-50 (on bridge)		51	6 mph
North of Franklin Avenue		60	15 mph
North of Myrick Manor		63	8 mph
North of Reeds Plaza		63	8 mph

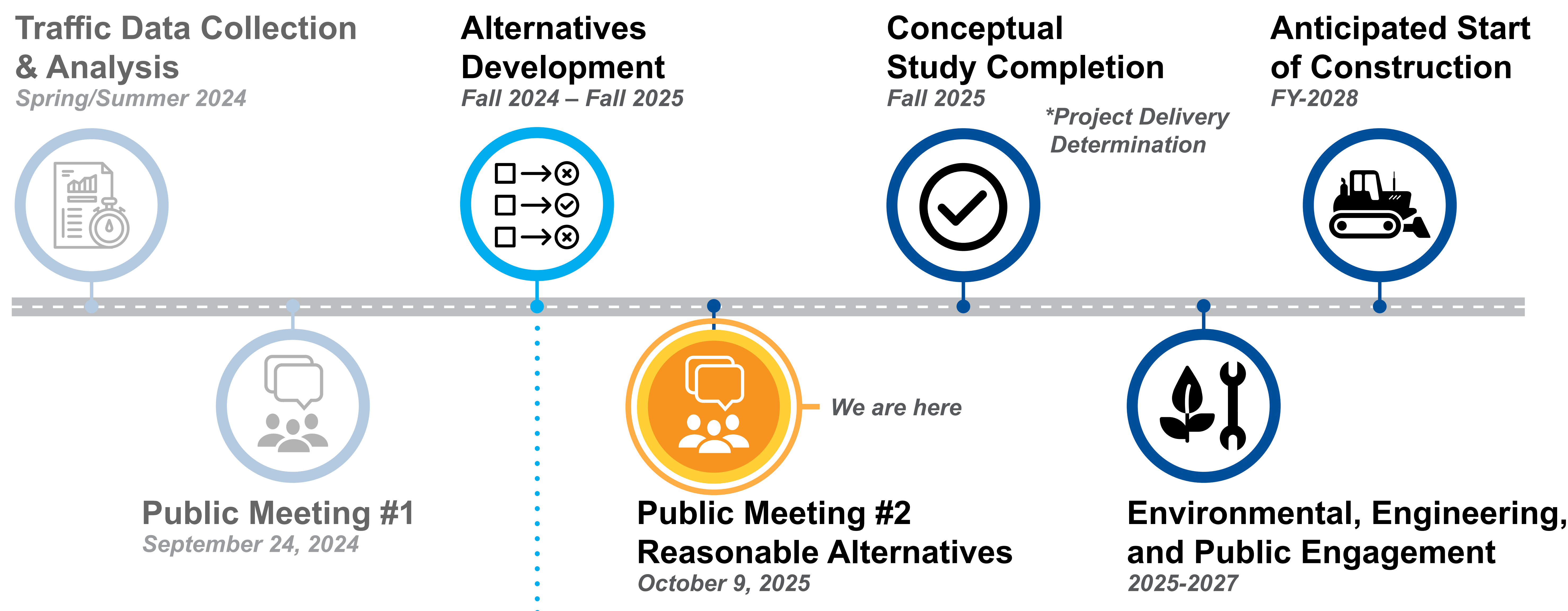


Are you open to **SPEED REDUCTIONS** to promote **SAFETY** for the traveling public?  
Lowering posted speed limits provide opportunities for improvements such as: changes to lanes, shoulders, and intersections.



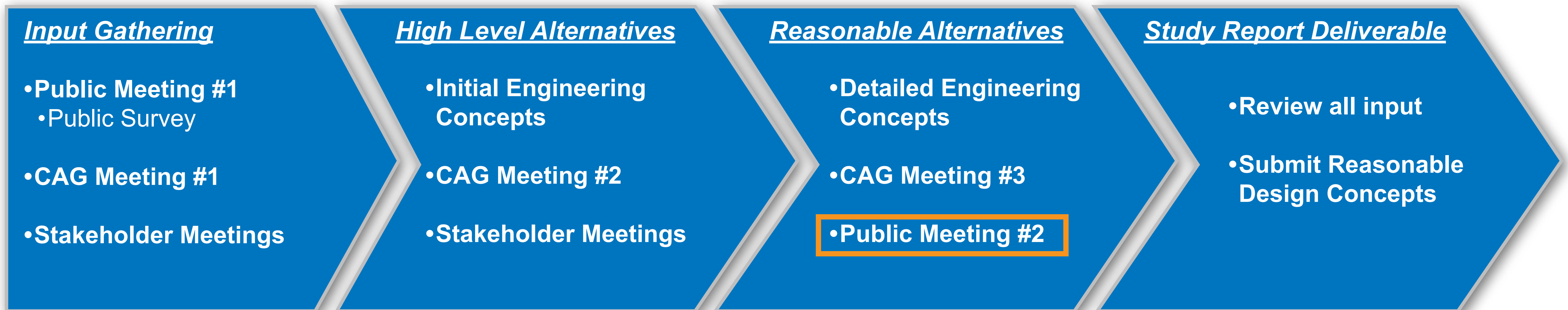


# Project Timeline



## Study Alternatives Development Process

The project team has taken many steps to develop reasonable alternatives that will best meet the needs of the communities.



\*CAG–Community Advisory Group





# Project Delivery Options

MoDOT is considering both traditional Design-Bid-Build and the alternative project delivery method, Design-Build.

## Design-Bid-Build

Design-Bid-Build (DBB) separates design and construction into two separate phases and contracts. This can potentially lead to longer timelines and coordination issues.

*Benefits include:*

- MoDOT and community more involved in the preliminary and final design
- Design complete prior to construction start
- More competitive contractor bidding

## Design-Build

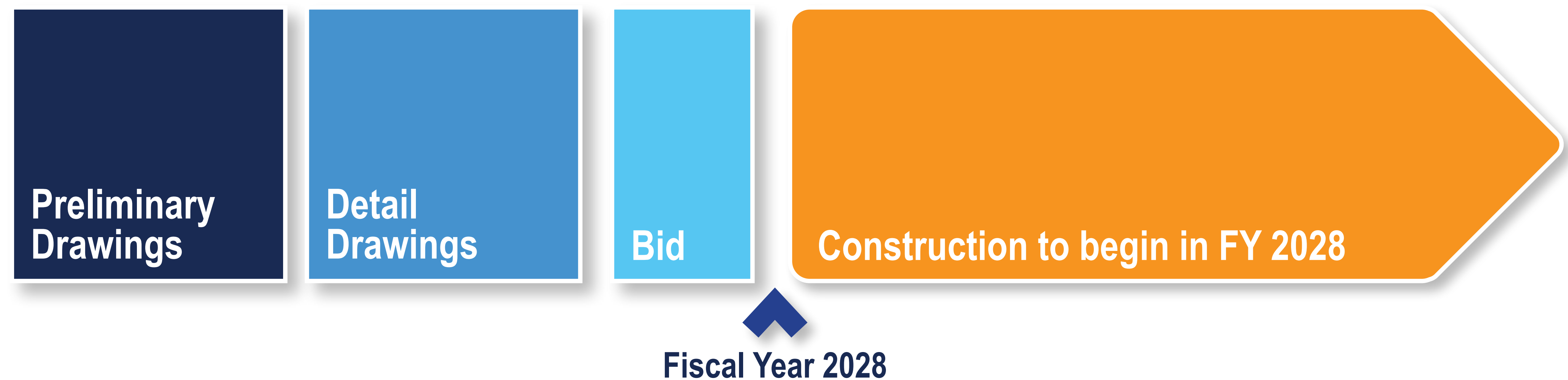
Design-build brings together teams of engineering consultants and construction contractors to collaborate from the start.

*Benefits include:*

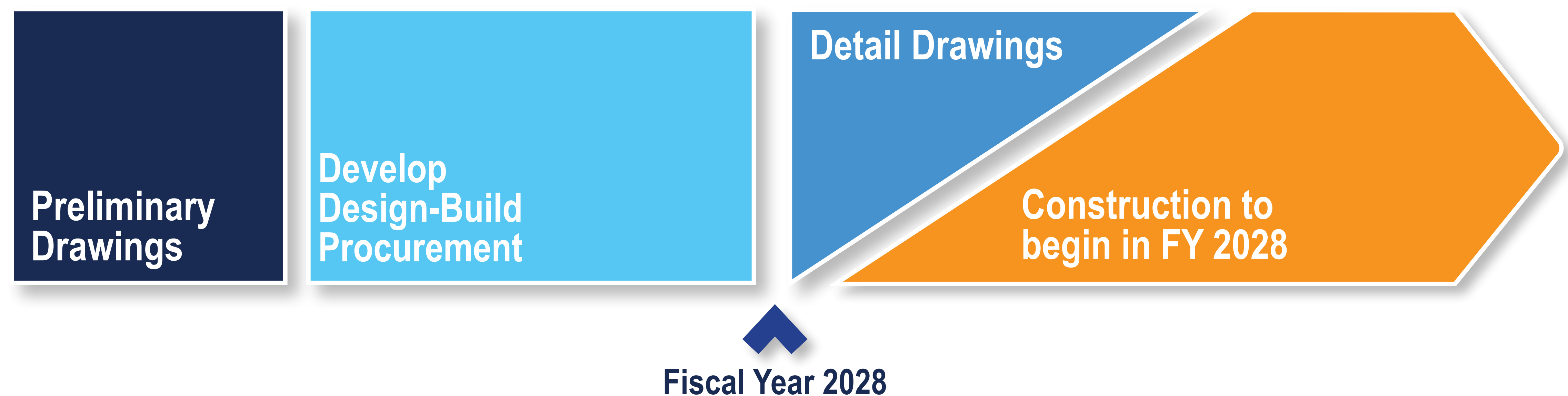
- Project goal focused outcome/solution
- Faster Delivery
- Cost efficient
- Innovative
- Increase scope

### Design-Bid-Build or Design-Build Approach

#### Design-Bid-Build Method



#### Design-Build Method



Project Duration





# Public Engagement

- Public Open House – 160 attendees
- Public Survey – 190 responses
- Public Meeting #1 (9/24/2024)
- Key Stakeholder Listening Sessions - 12 meetings
- Community Advisory Group (CAG) - 3 meetings
- Key themes:
  - Support for improvements
  - Increase safety
  - Reduce congestion
  - MO 47 / US-50

## Community Advisory Group (CAG):

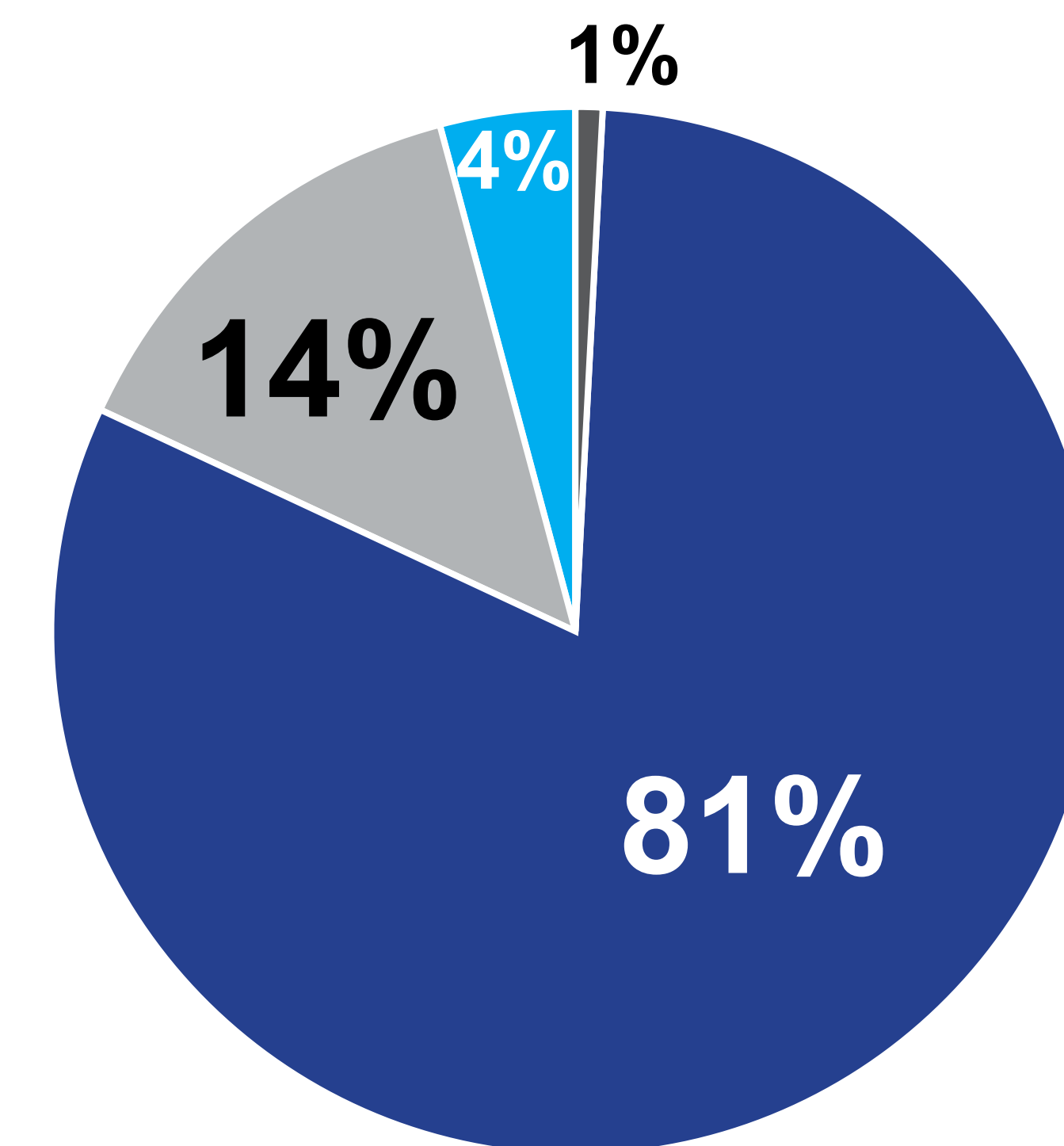
The CAG is made up of members of the community and key stakeholders across the project area. They include, but not limited to, staff from:

- Franklin Co.
- Emergency Services Personnel
- City of Washington
- School Districts
- City of Union
- Elected Officials
- City of St. Clair
- Key Business Representatives.

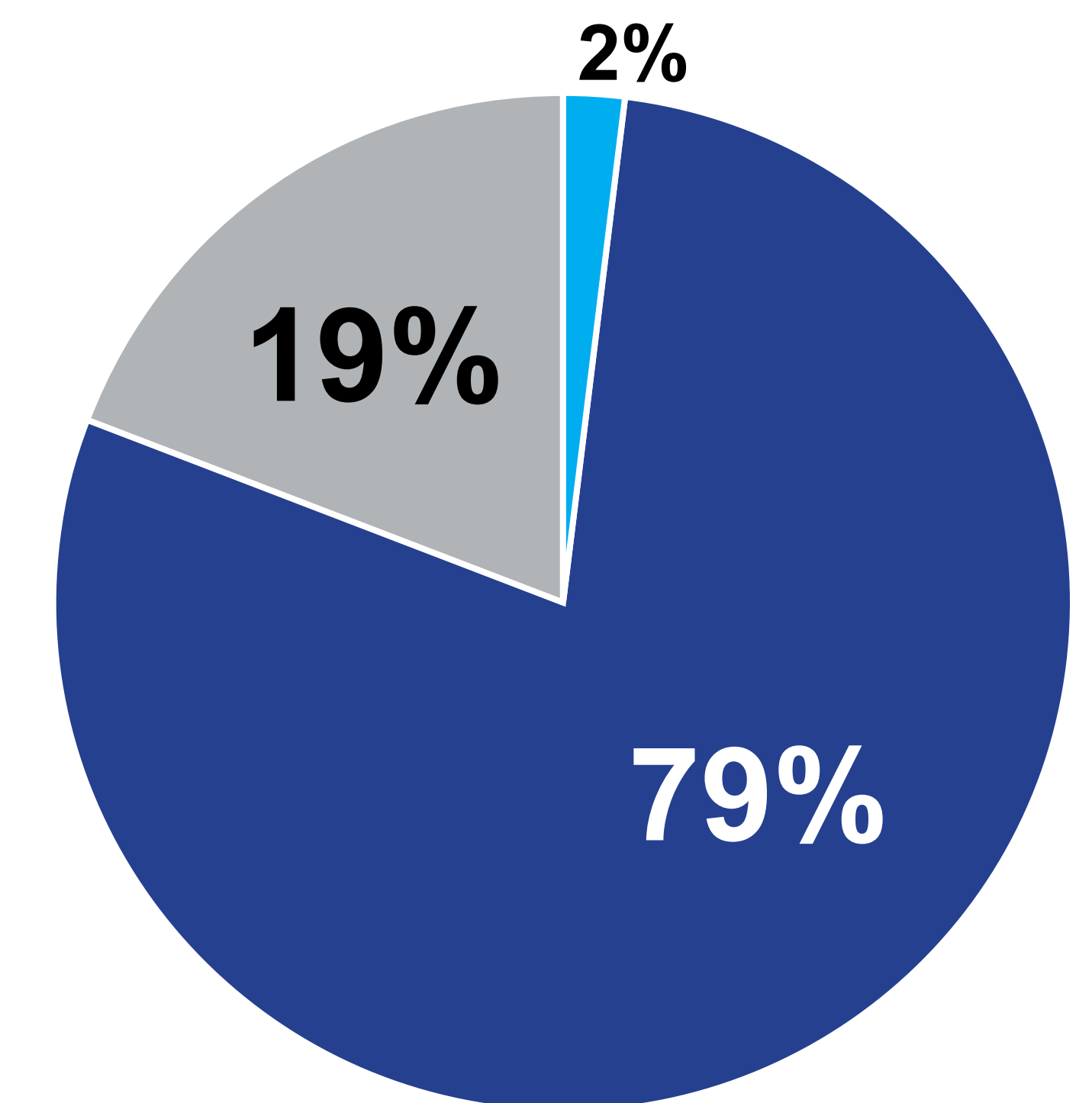
The members of the CAG represent their organizations and their constituents. The purpose of the CAG is to provide input to MoDOT on the project based on their professional experience and what they hear from those that use the corridor.

## Public Survey Key Takeaways- Fall 2024

How much of a concern is **SAFETY** to you on Route 47 in Franklin County?



How much of a concern is **TRAFFIC CONGESTION** to you on Route 47 in Franklin County?



■ Very Concerning ■ Somewhat Concerning ■ Not Concerning ■ Not Sure


**CAG #1 Input** – The CAG was asked “What words come to mind when you think about traveling MO Route 47 between Washington and St. Clair?”






# Project Goals


Based on stakeholder input, the project team has established the project goals. In addition, the CAG has helped prioritize the goals. This helps the project team, in addition to engineering factors, determine the best alternatives to help meet the needs of the community. The Prioritized goals include:




**Increase Safety**



**Reduce Congestion**

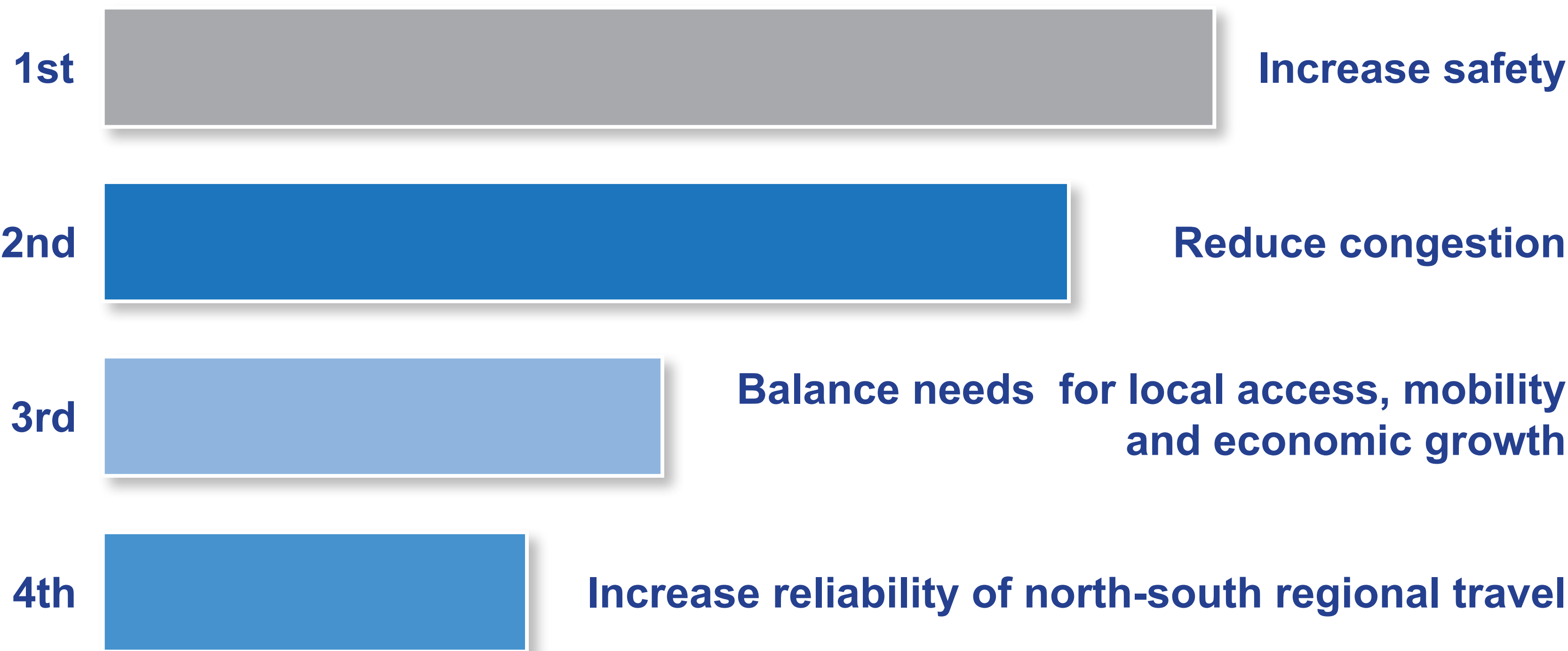


**Balance needs for local access, mobility, and economic growth**



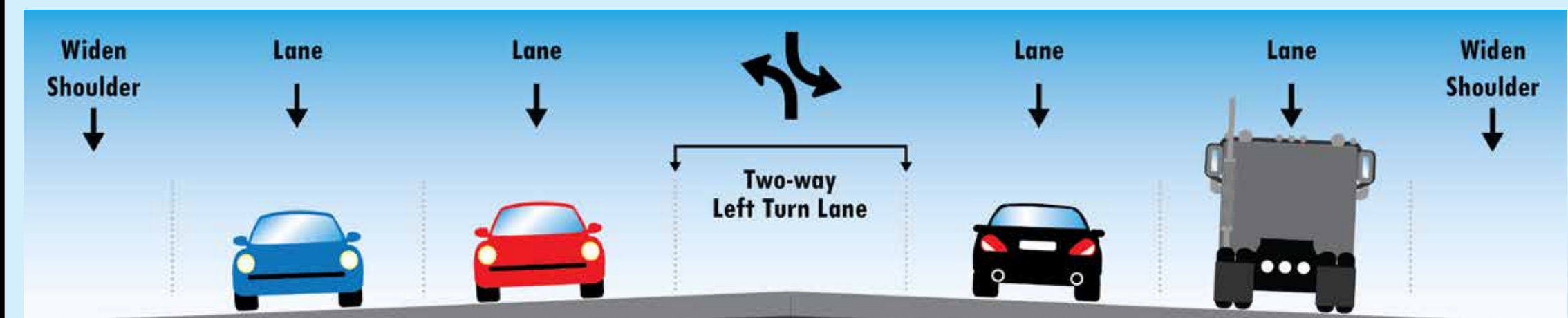
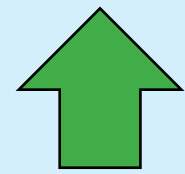

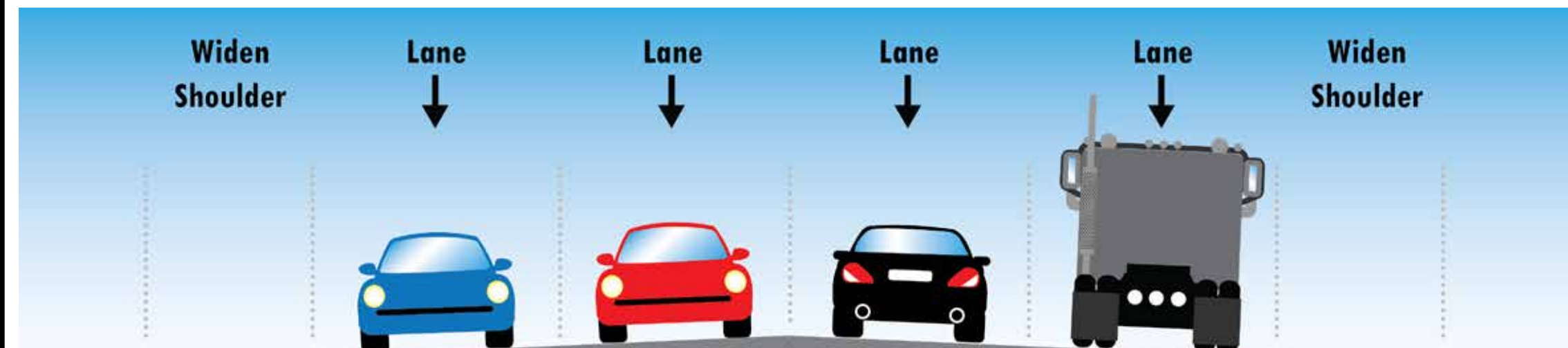
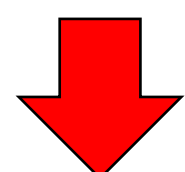
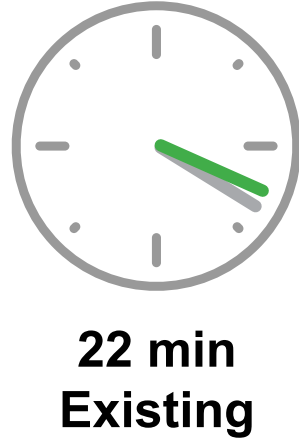
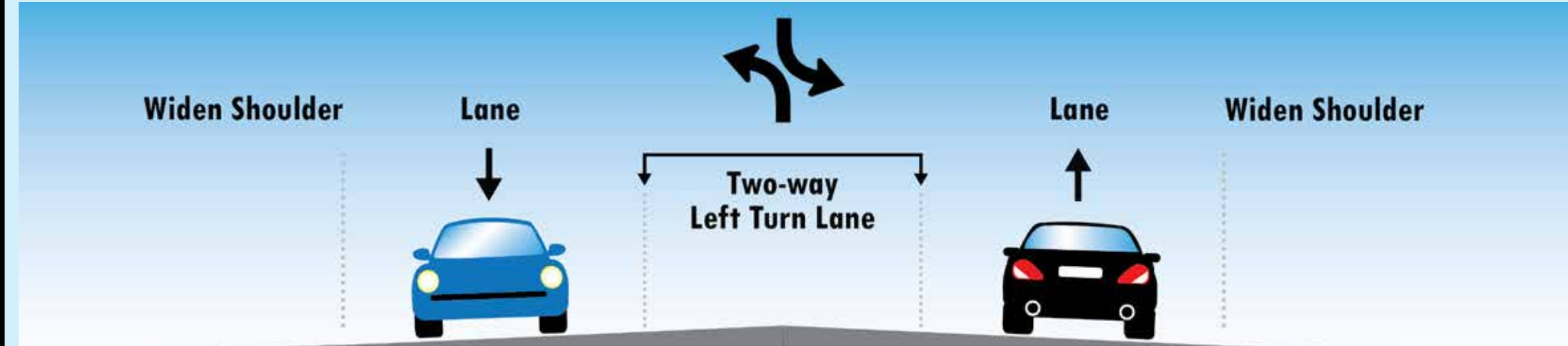
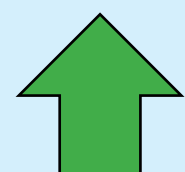

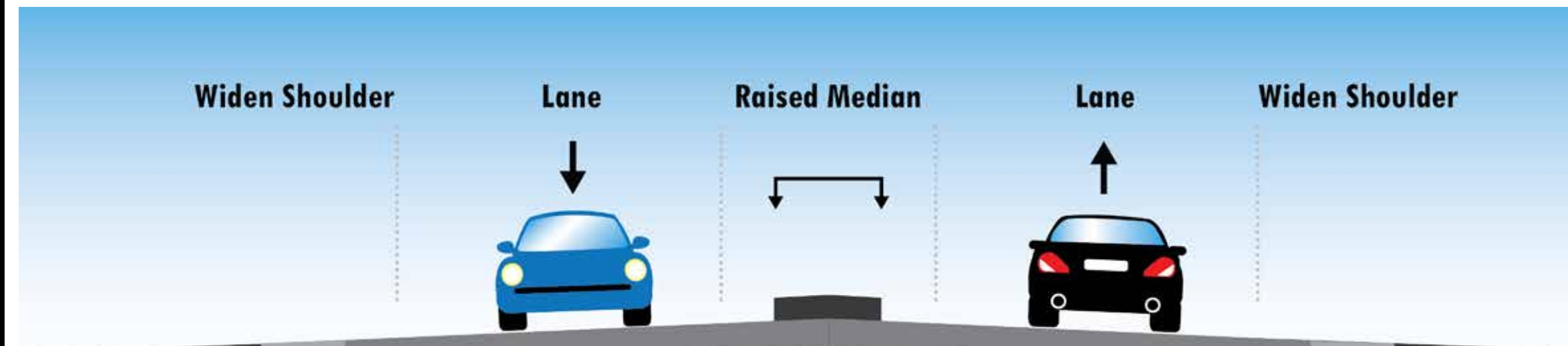


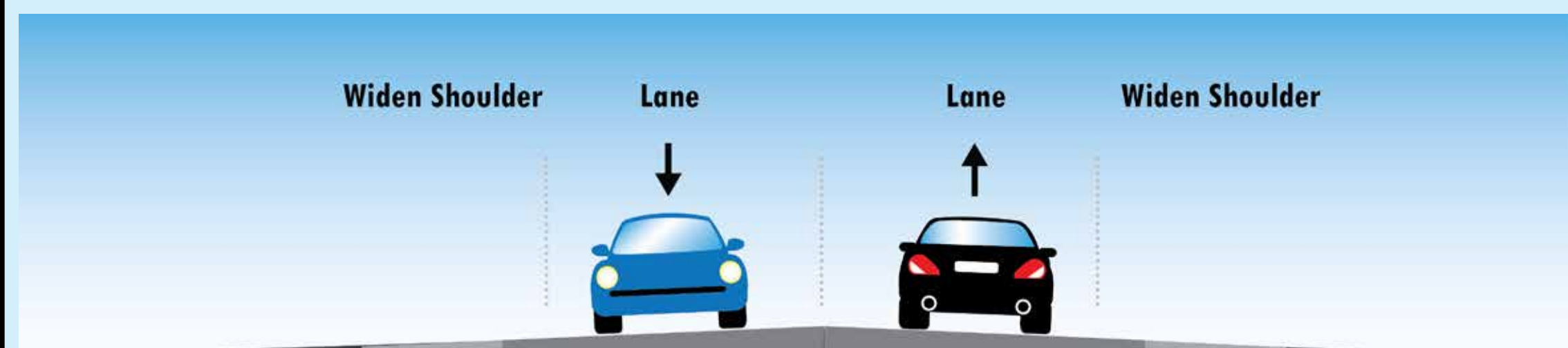
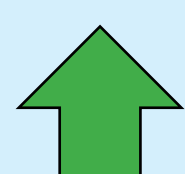

**Increase reliability of north-south regional travel**

The CAG was asked to prioritize the project goals at CAG meeting #2. This helped the team further develop alternative concepts. Rankings are as follows:





# MO-47 Corridor Options

Roadway	Avg. Daily Traffic (ADT) Capacity	Predicted Safety Benefits (%)	Predicted Travel Time (Minutes)	Locations of Consideration
 <p>5-Lane with Center Two-way Left Turn Lane</p>	72,000	 <p><b>Increases Safety</b> (42% Less Crashes)</p>	 <p>22 min Existing</p> <p><b>19 Minute Proposed Travel Time</b></p>	<ul style="list-style-type: none"> <li>• City of Union (US-50 /47 to Independence Dr.)</li> <li>• City of Washington</li> </ul>
 <p>4-Lane Undivided</p>	60,000	 <p><b>Decreases Safety</b> (15% More Crashes)</p>	 <p>22 min Existing</p> <p><b>20 Minute Proposed Travel Time</b></p>	<ul style="list-style-type: none"> <li>• City of Union (US-50 /47 – Independence Dr.)</li> <li>• City of Washington</li> </ul>
 <p>Center Two-way Left Turn Lane</p>	36,000	 <p><b>Increases Safety</b> (36% Less Crashes)</p>	 <p>22 min Existing</p> <p><b>21 Minute Proposed Travel Time</b></p>	<ul style="list-style-type: none"> <li>• Rural Washington to Independence Dr.</li> <li>• US-50 to St. Clair</li> </ul>
 <p>3 Lane Divided</p>	32,000	 <p><b>Increases Safety</b> (15% Less Crashes)</p>	 <p>22 min Existing</p> <p><b>25 Minute Proposed Travel Time</b></p>	<ul style="list-style-type: none"> <li>• Rural Washington to Independence Dr.</li> <li>• US-50 to St. Clair</li> </ul>
 <p>Existing 2-Lane with Widened Shoulder</p>	24,000	 <p><b>Increases Safety</b> (10% Less Crashes)</p>	 <p>22 min Existing</p> <p><b>22 Minute Proposed Travel Time</b></p>	<ul style="list-style-type: none"> <li>• Rural Washington to Independence Dr.</li> <li>• US-50 to St. Clair</li> </ul>

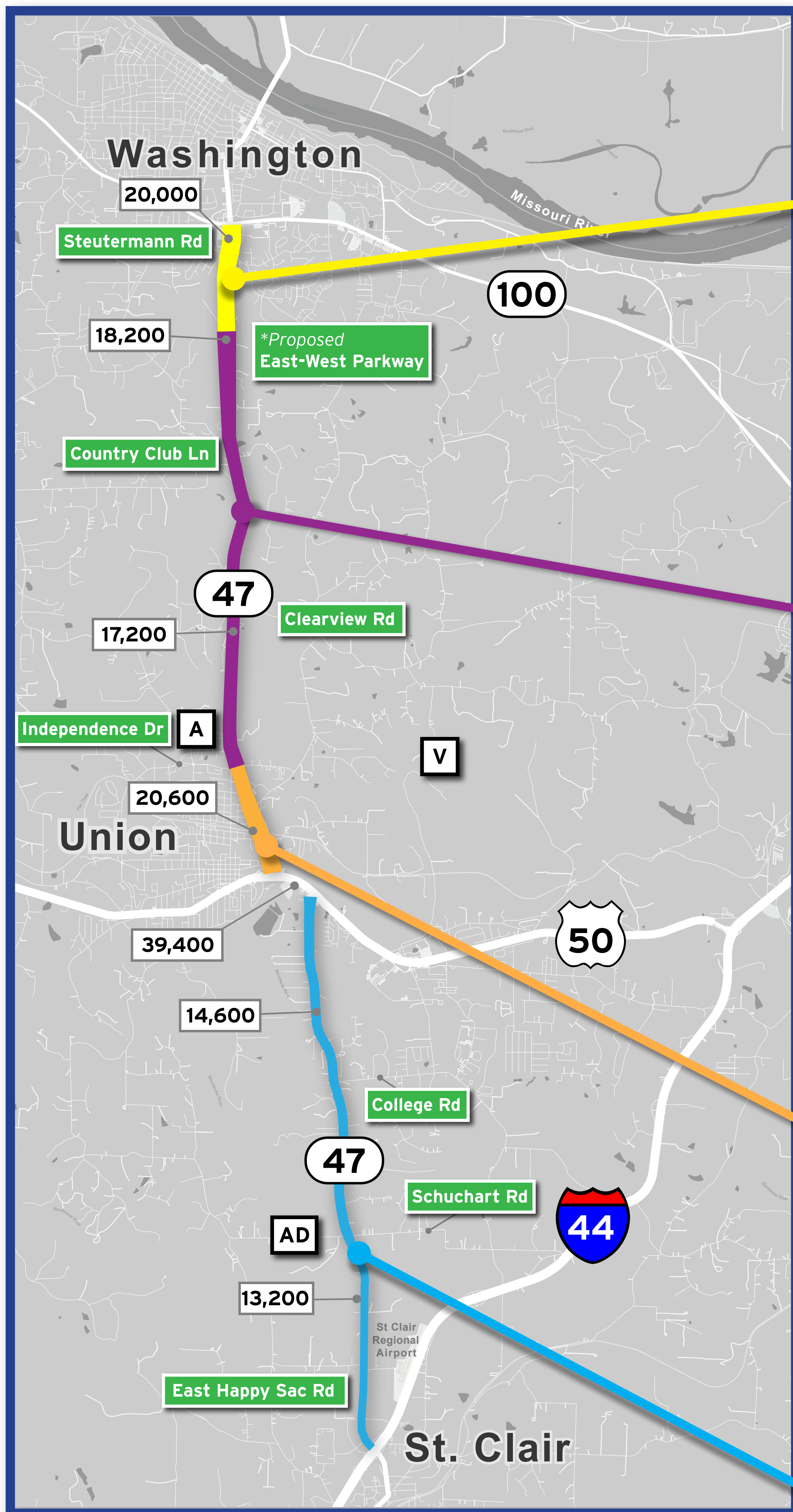
Average Daily Traffic (ADT) Volumes - Existing and Predicted Future

Location	2024 ADT	2050 ADT
MO-47 North of US-50	17,200	21,400
Rt-47 at US-50	39,400	47,800
MO-47 South of US-50	14,600	16,600



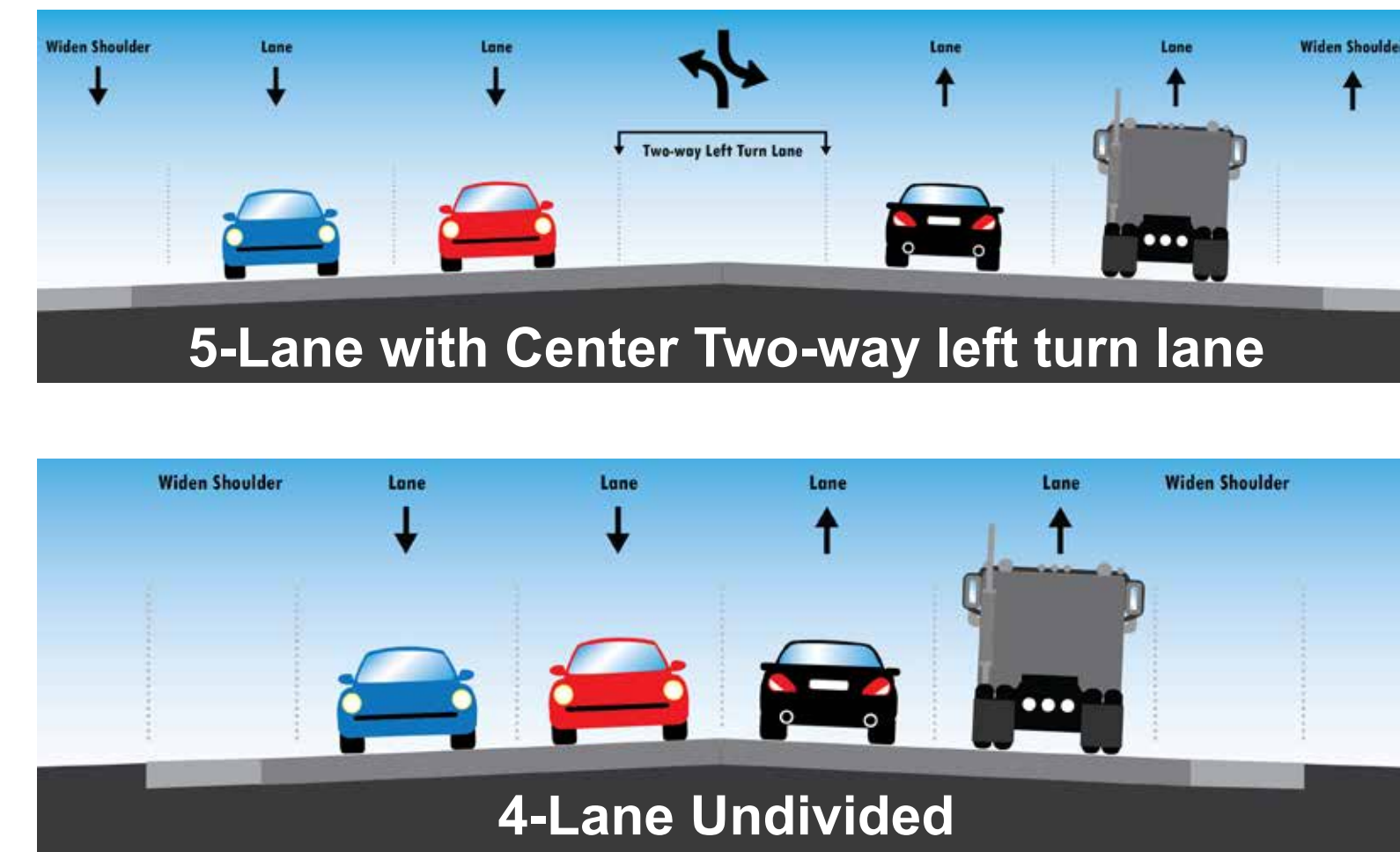


# Route 47 - Potential Lane Widening and Locations

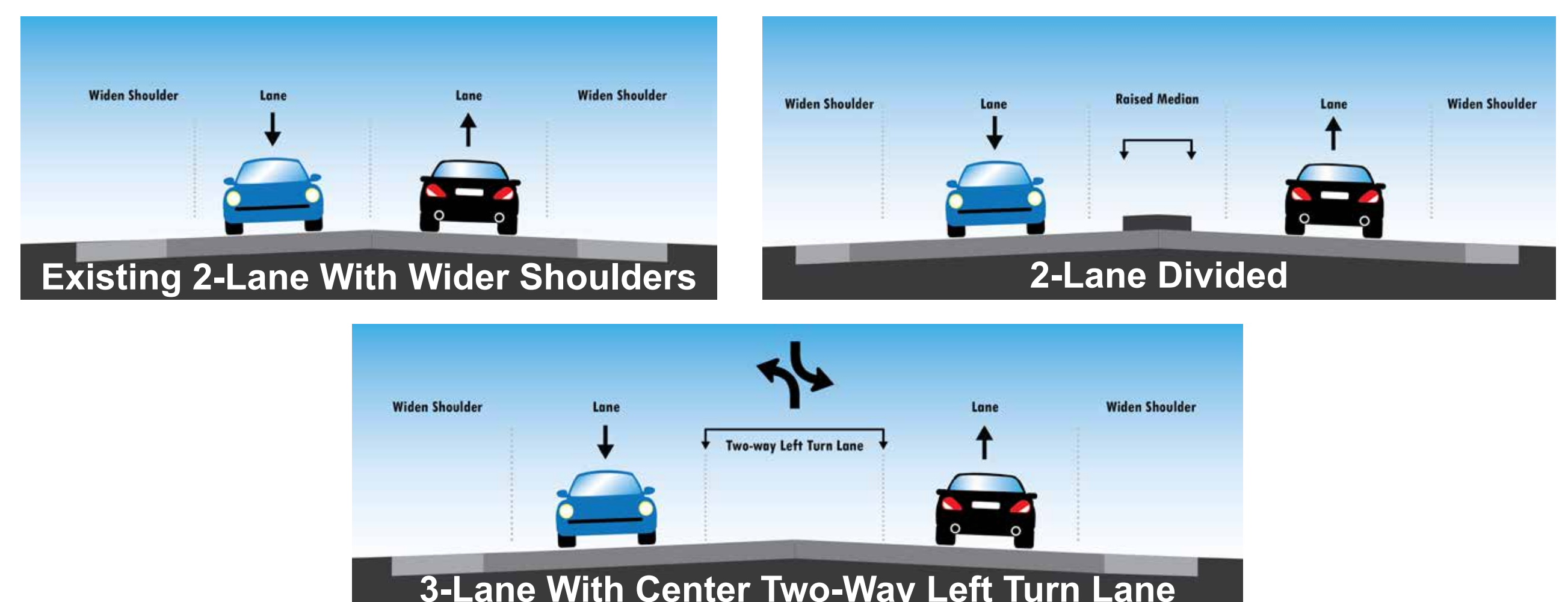


Numbers listed above are the existing Average Daily Traffic (ADT)

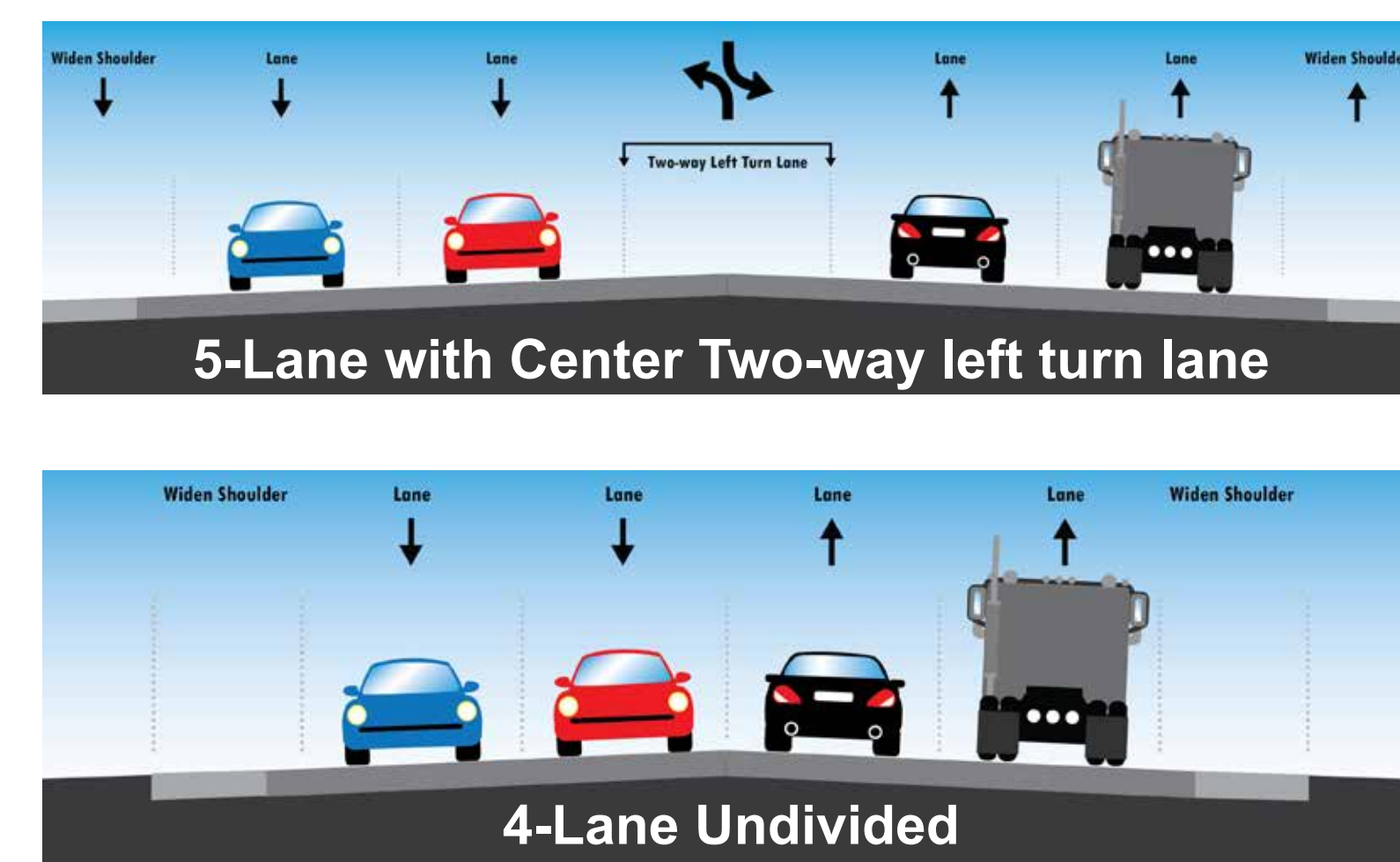
## City of Washington (Proposed Partnership)



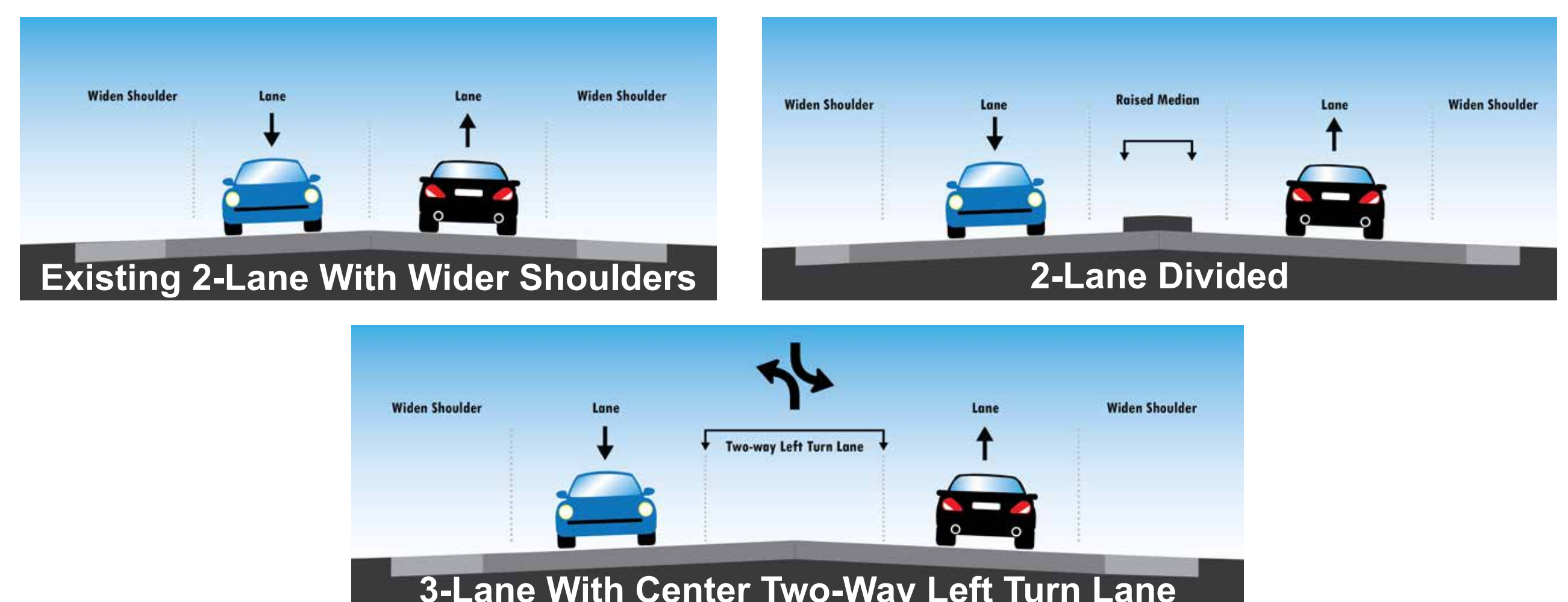
## Rural Washington to Independence Dr. Capacity Considerations



## Independence Dr. to US-50/47 Capacity Considerations



## US-50 to St. Clair Capacity Considerations



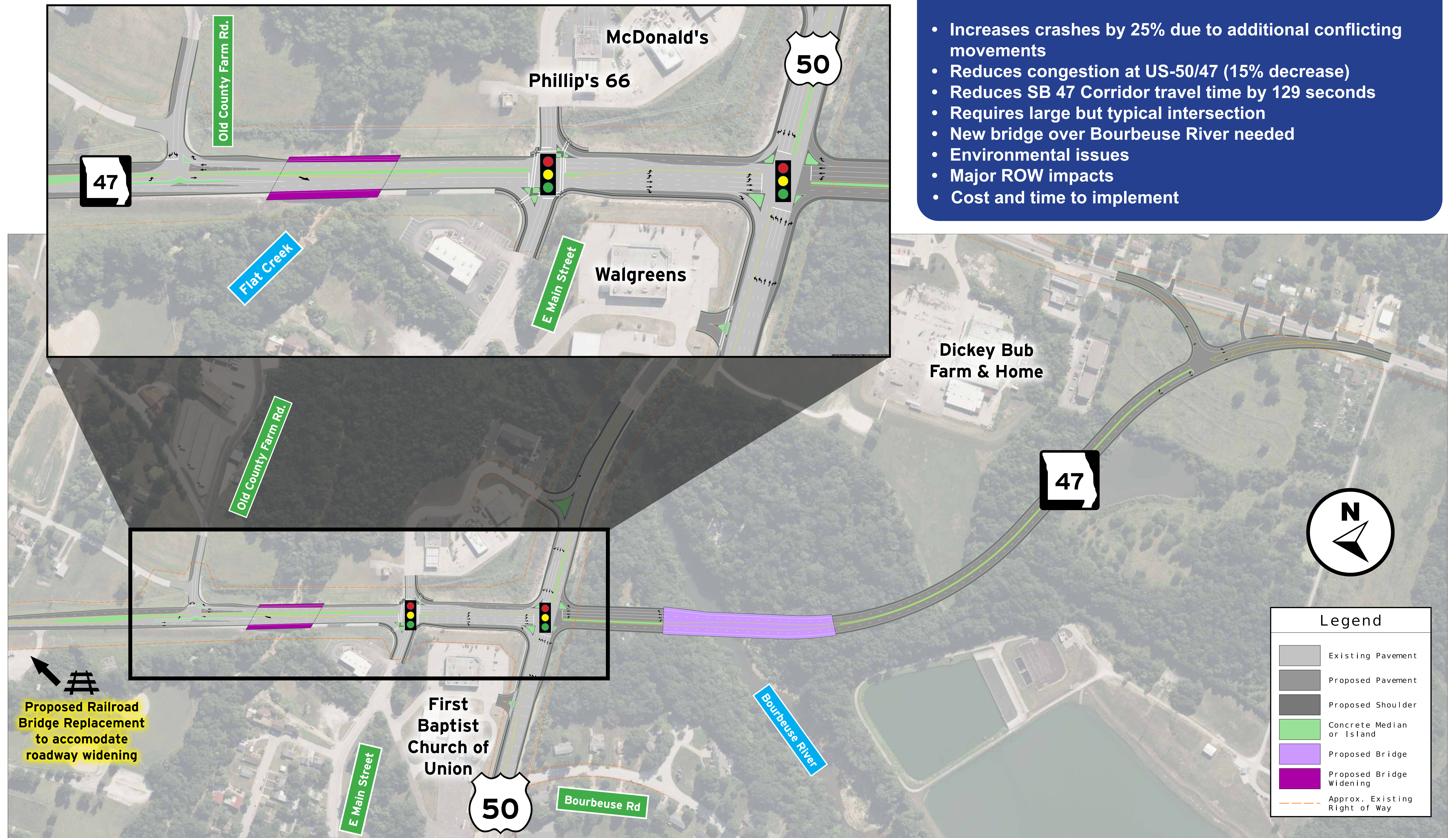


# US-50 / 47 Intersection Concepts

## Southwest Realignment

## Key Highlights:

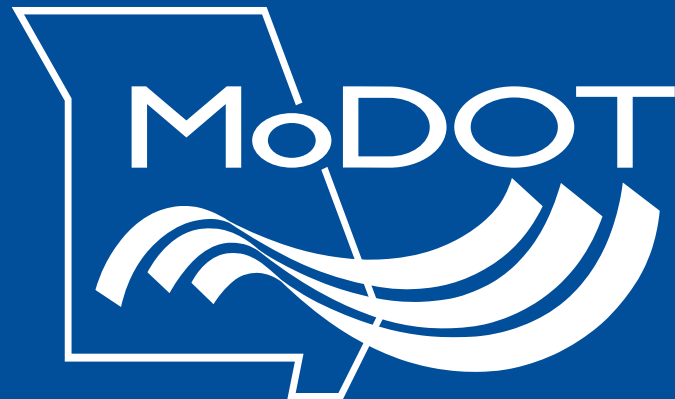
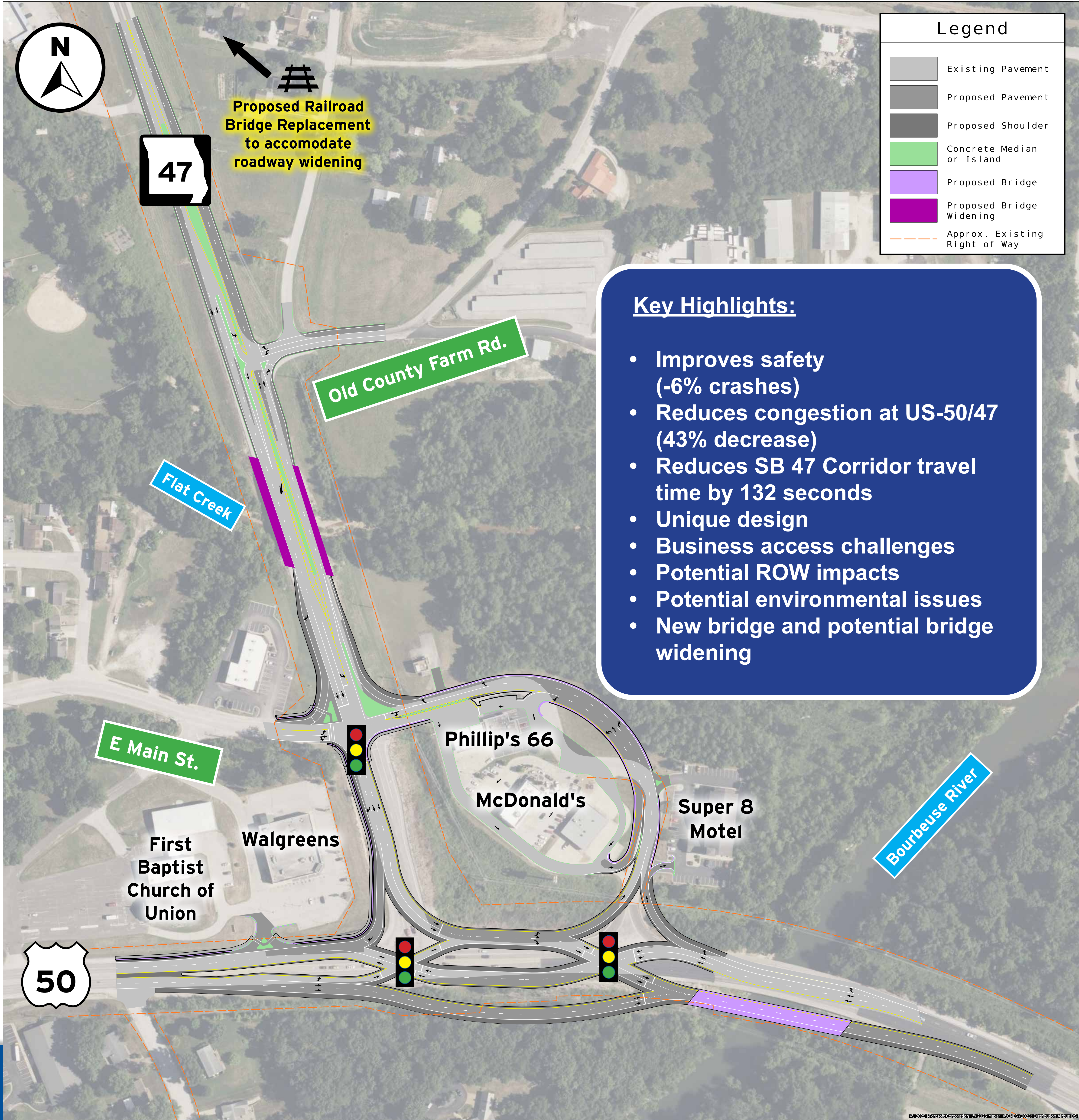
- **Increases crashes by 25% due to additional conflicting movements**
- **Reduces congestion at US-50/47 (15% decrease)**
- **Reduces SB 47 Corridor travel time by 129 seconds**
- **Requires large but typical intersection**
- **New bridge over Bourbeuse River needed**
- **Environmental issues**
- **Major ROW impacts**
- **Cost and time to implement**





# US-50/47 Intersection Concepts

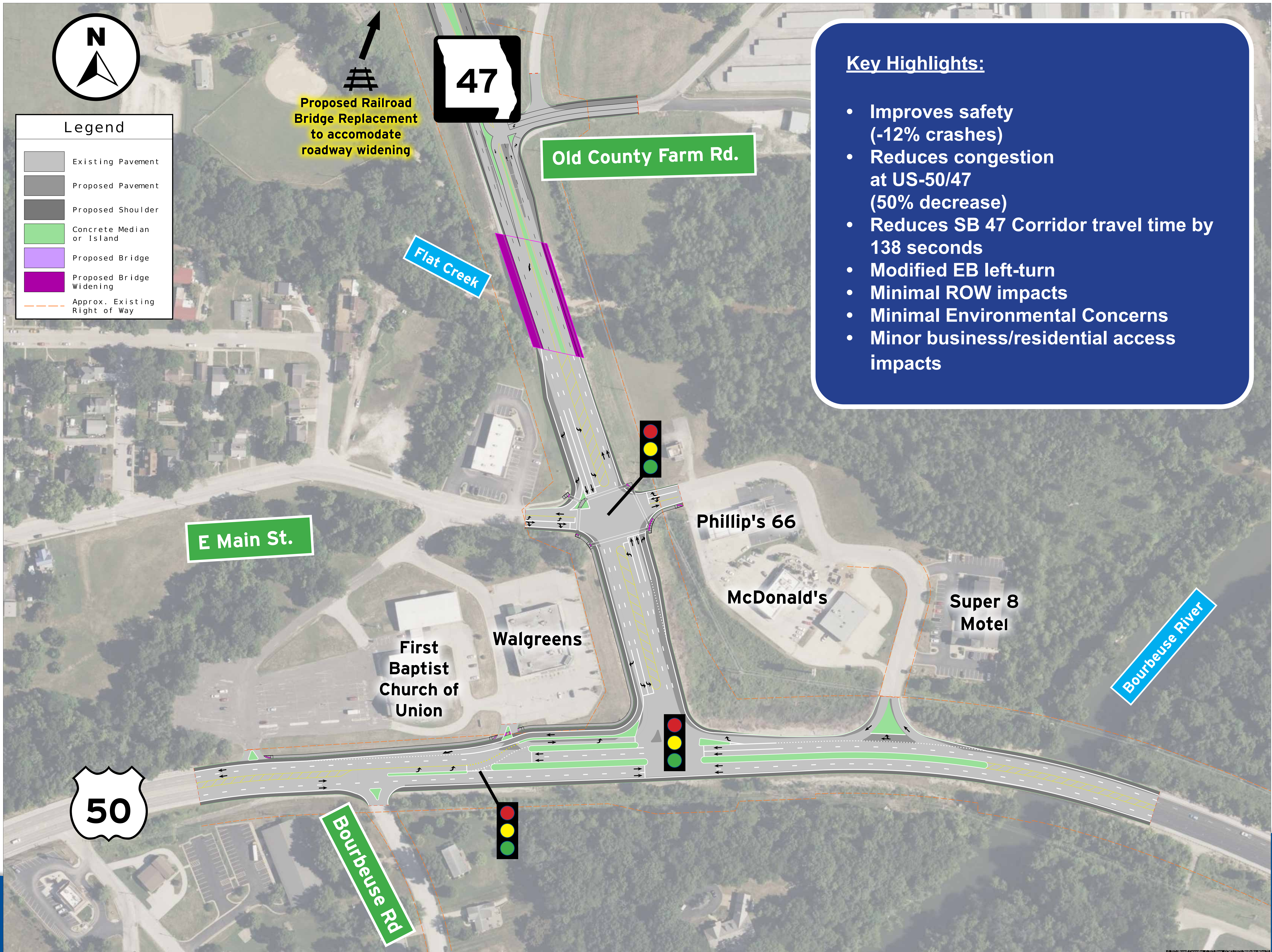
## Diverging Diamond Interchange (DDI)





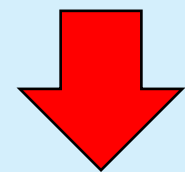


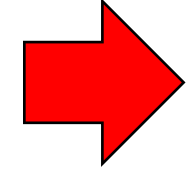
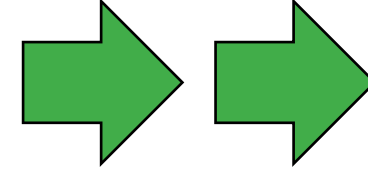
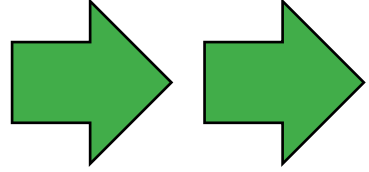
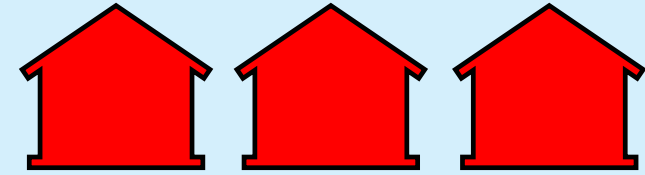
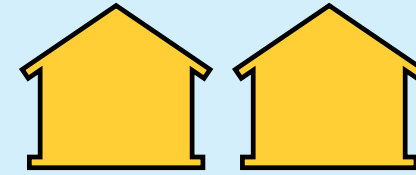
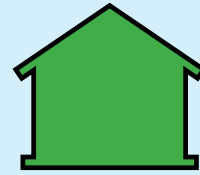



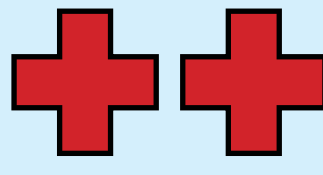
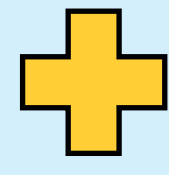

# US-50/47 Intersection Concepts

## Continuous Flow Intersection (CFI)





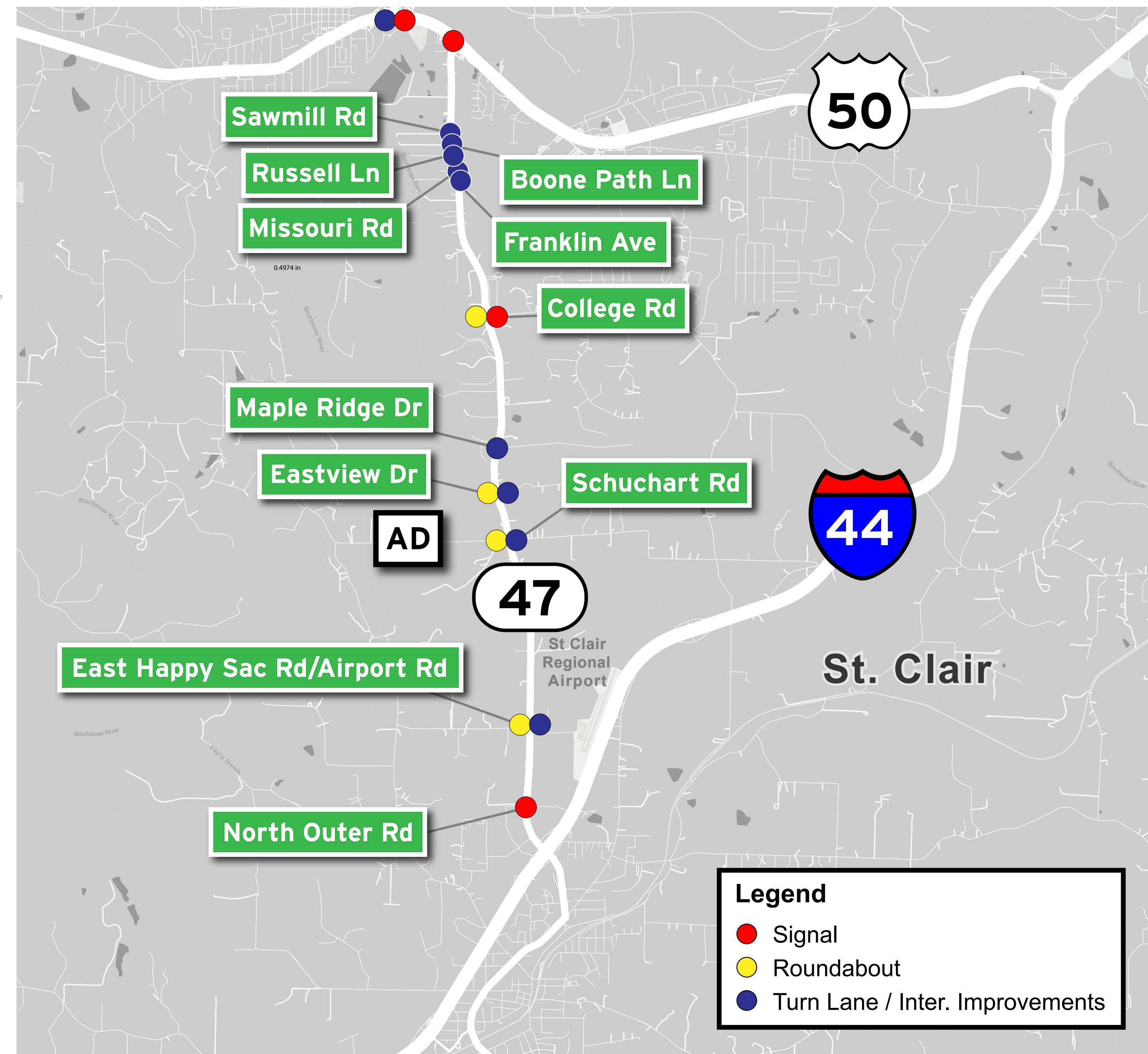
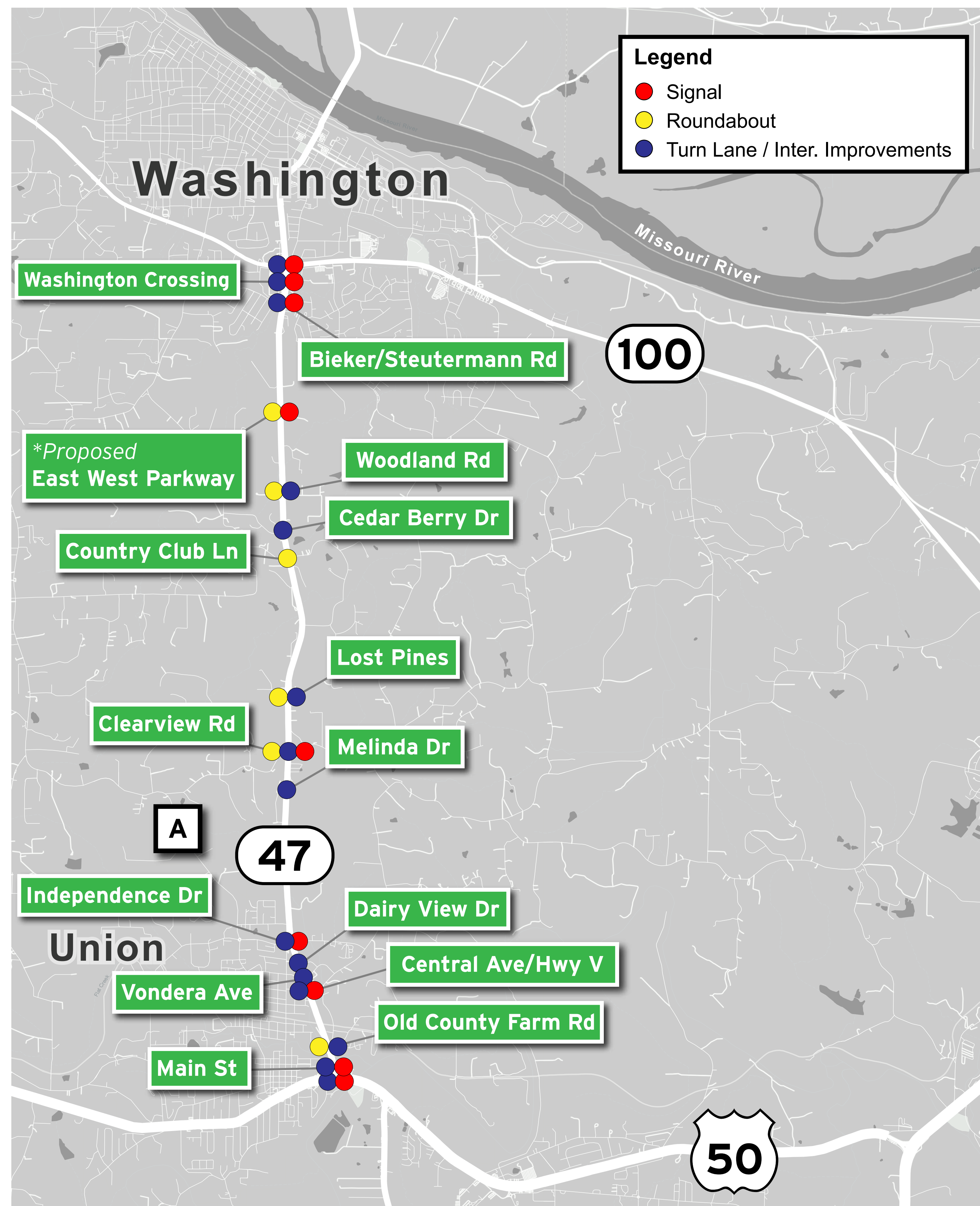
# Comparison of Three Concepts

	Southwest Realignment	Diverging Diamond Intersection (DDI)	Continuous Flow Intersection (CFI)
Safety	 (25% more crashes)	 (6% less crashes)	 (12% less crashes)
Travel Time US-50/47 (Overall Delay): SB 47 (US-50) SB 47(Indep. Dr. to 50):	 15% decrease 25 seconds faster 129 seconds faster	 43% decrease 51 seconds faster 132 seconds faster	 50% decrease 60 seconds faster 138 seconds faster
Right-of-way	 Significant Impacts 13 parcel/21 acres	 Potential Impacts 10 parcels	 Minimal Impacts 1 parcel
Cost			
Environmental	 Concerns	 Potential	 Minimal
Other	<ul style="list-style-type: none"> <li>• New bridge needed</li> <li>• Implementation (Time, \$)</li> <li>• Moves traffic congestion west</li> </ul>	<ul style="list-style-type: none"> <li>• Unique Design</li> <li>• Access impacts to/from businesses</li> <li>• New bridge and potential bridge widening</li> </ul>	<ul style="list-style-type: none"> <li>• Minor business/residential access impacts</li> </ul>





# Potential Intersection Improvements



## What We Heard...






- CAG interested in improvements at many locations throughout the corridor
- Mix of solutions (signals, roundabouts, turn lanes, etc.) may be good
- Need to be determined by each location
- Roundabouts
  - Adjust Speed Limit Accordingly
  - General support
  - Use where appropriate
  - Do not make them too close together



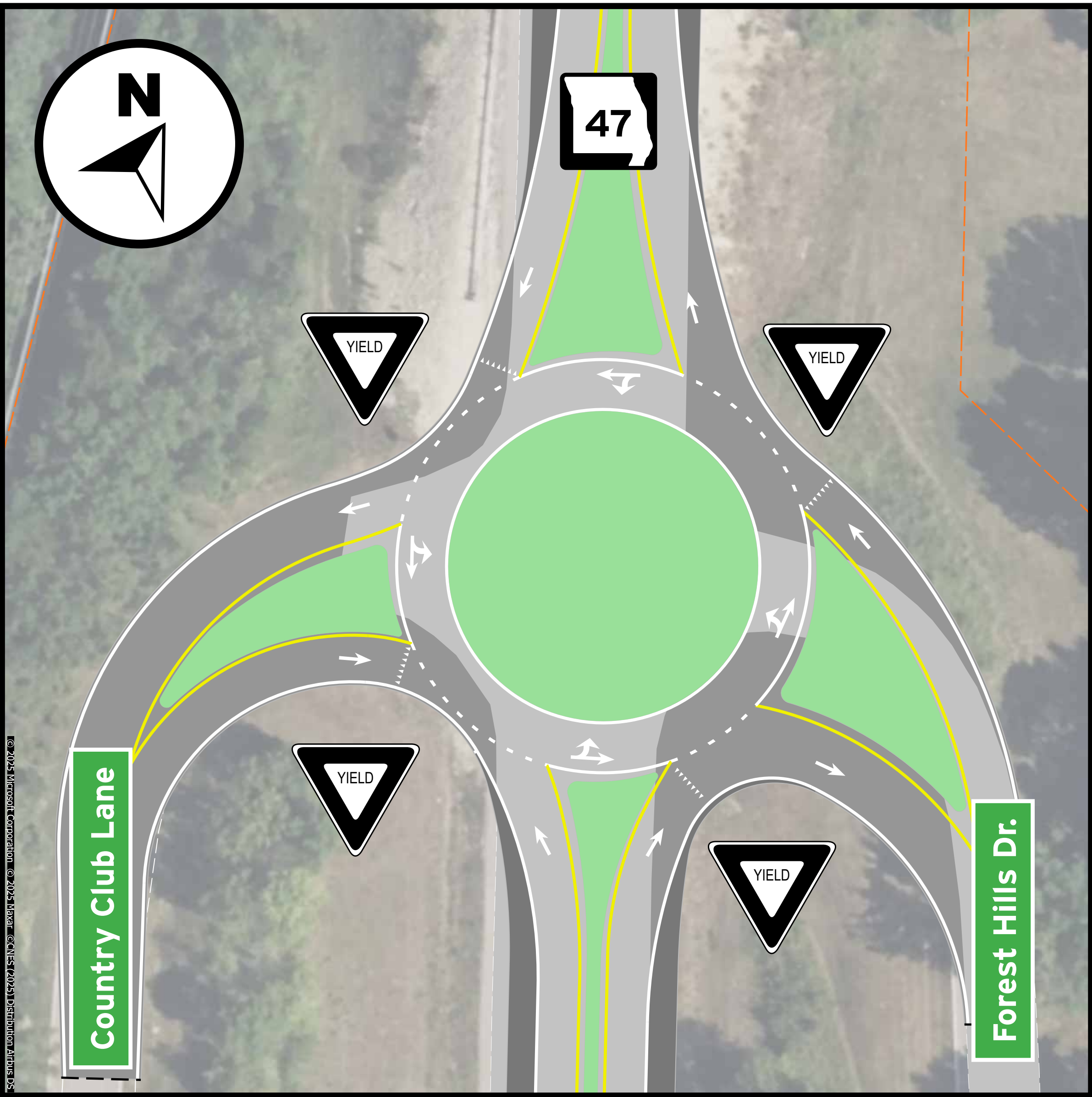


# Intersection Improvement Examples

(Washington to Union)

Legend	
	Existing Pavement
	Proposed Pavement
	Proposed Shoulder
	Concrete Median or Island
	Approx. Existing Right of Way

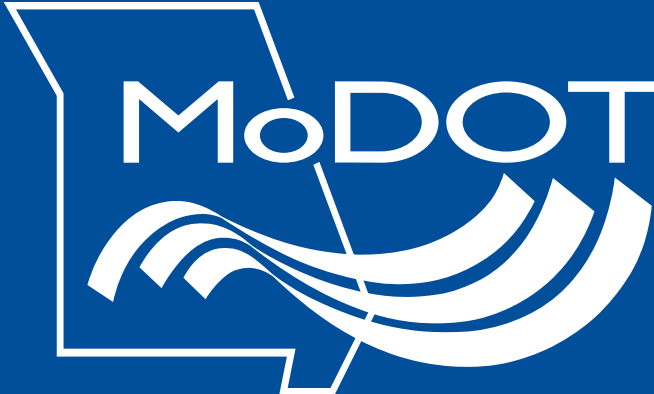
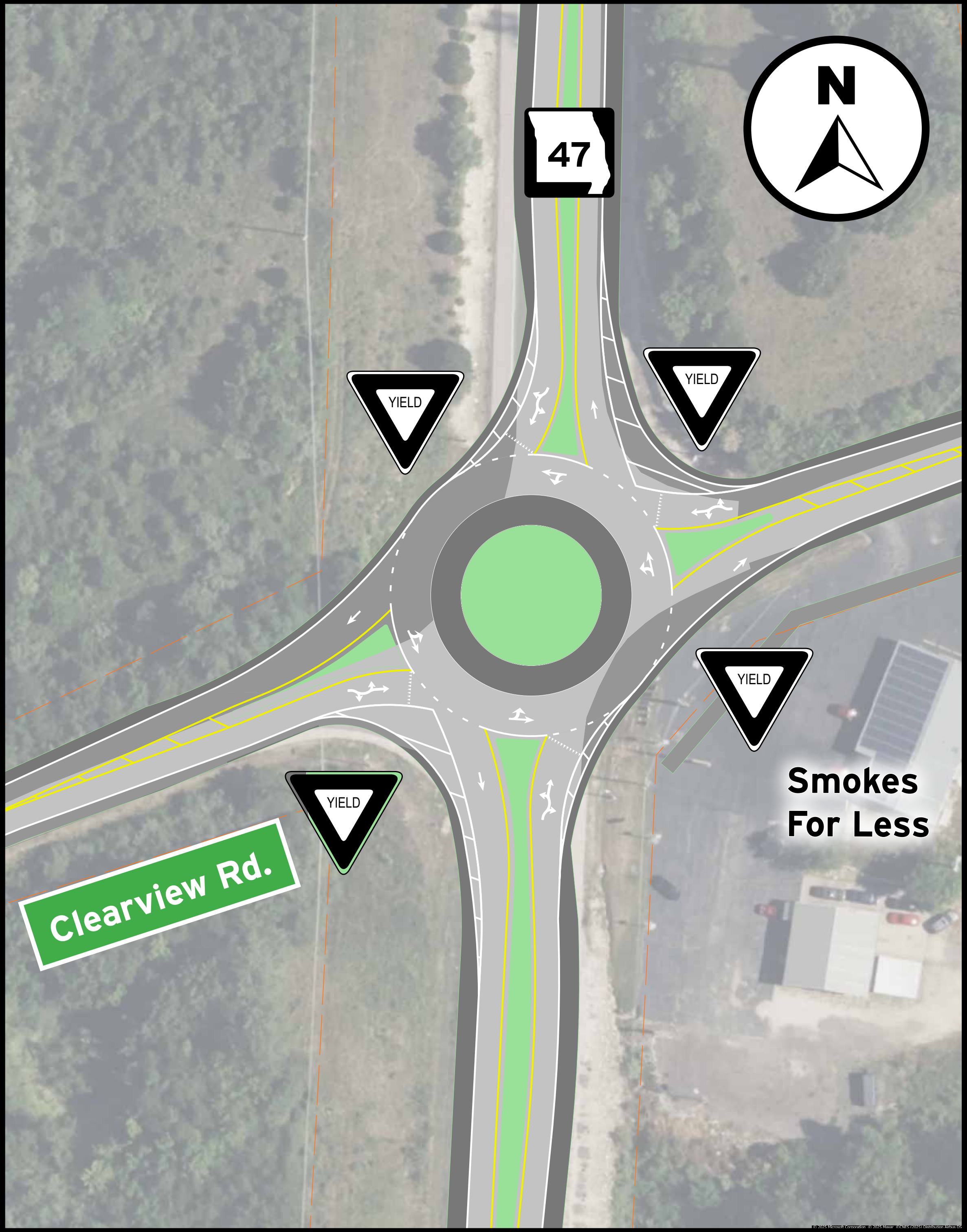
Country Club Lane/  
Forest Hills



Clearview Road  
(Signal)








Clearview Road  
(Roundabout)



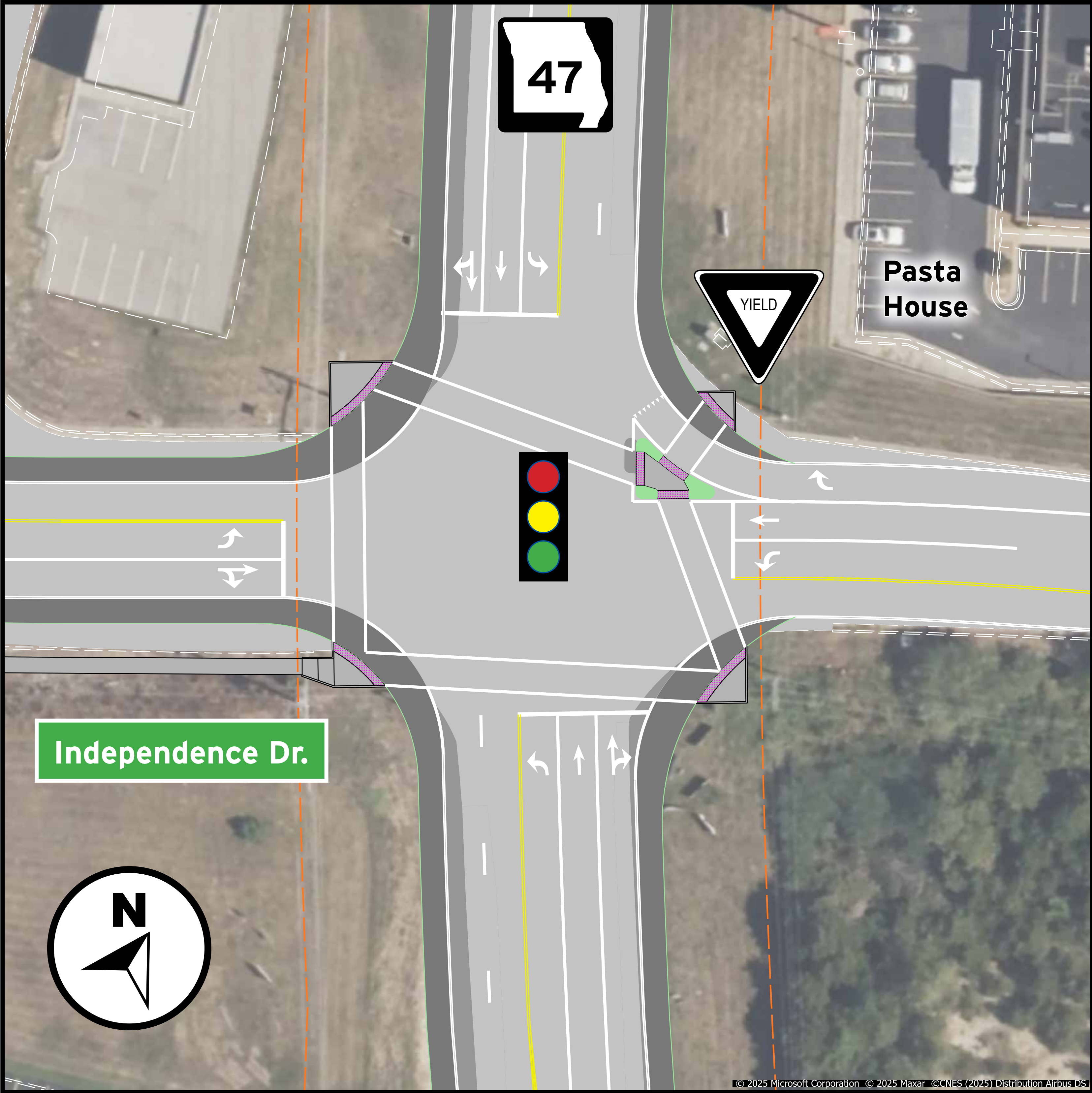


# Intersection Improvement Examples

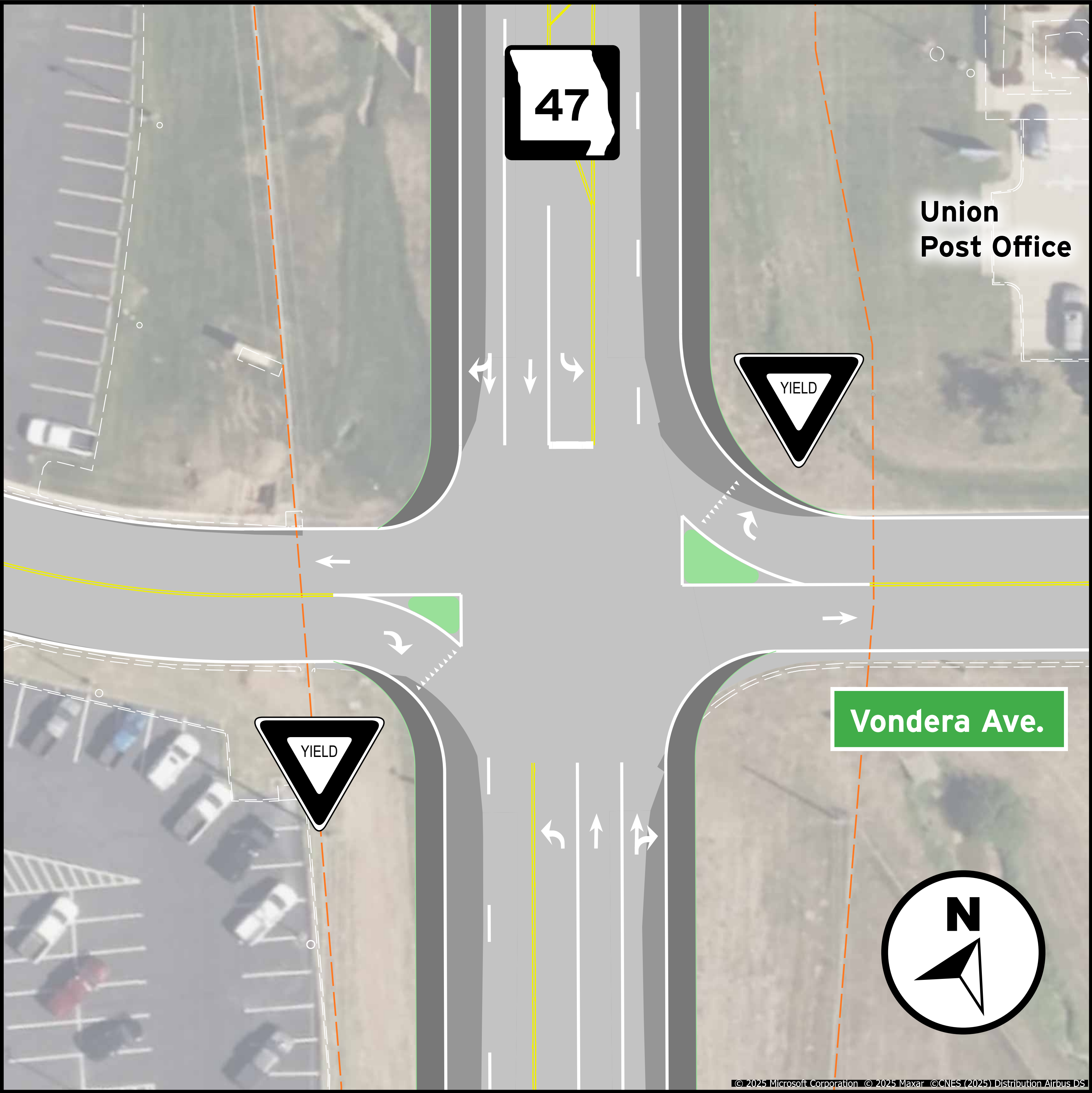
(City of Union)

Legend	
	Existing Pavement
	Proposed Pavement
	Proposed Shoulder
	Concrete Median or Island
	Approx. Existing Right of Way

Independence Dr.









Vondera Ave.



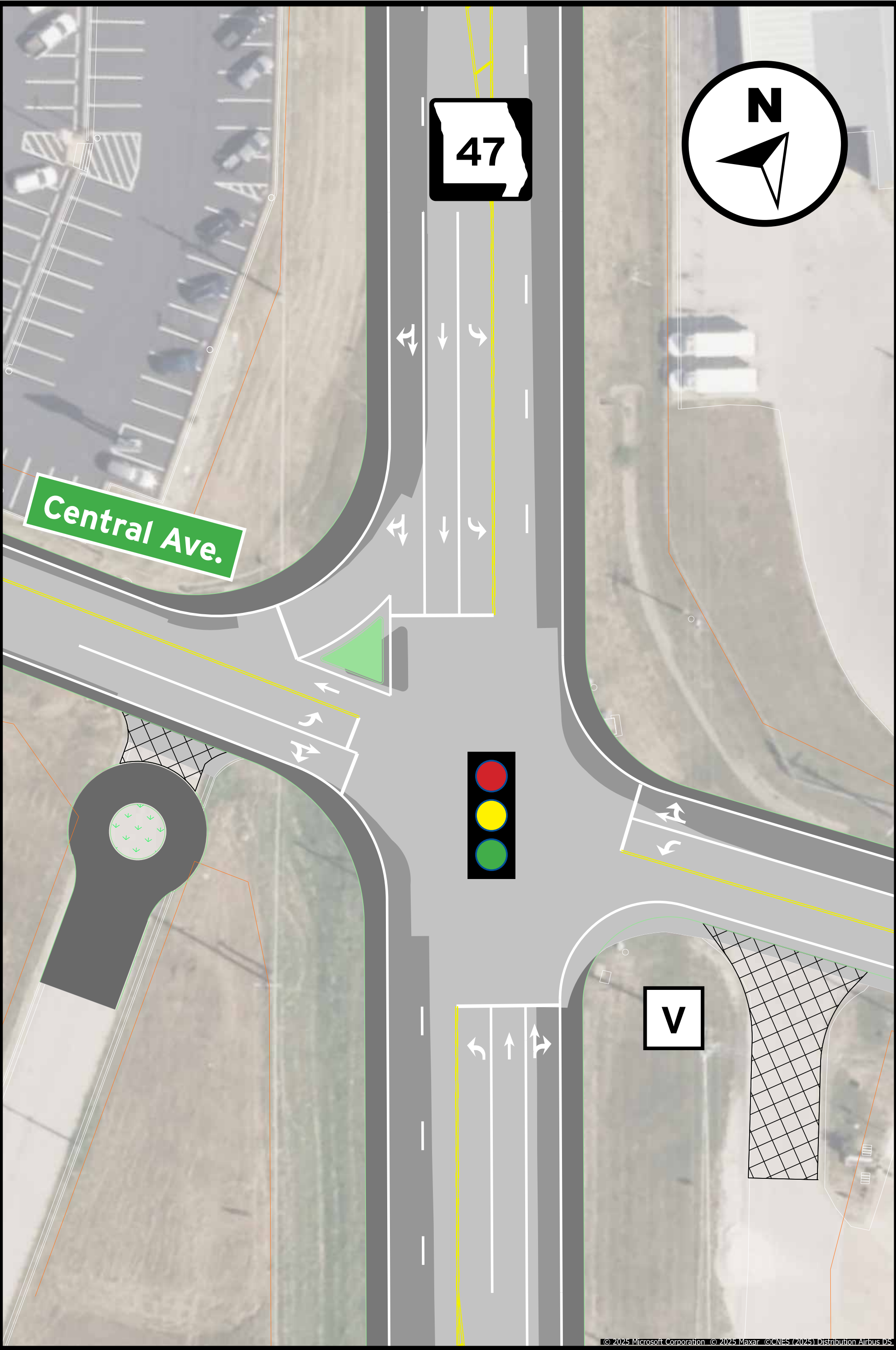


# Intersection Improvement Examples

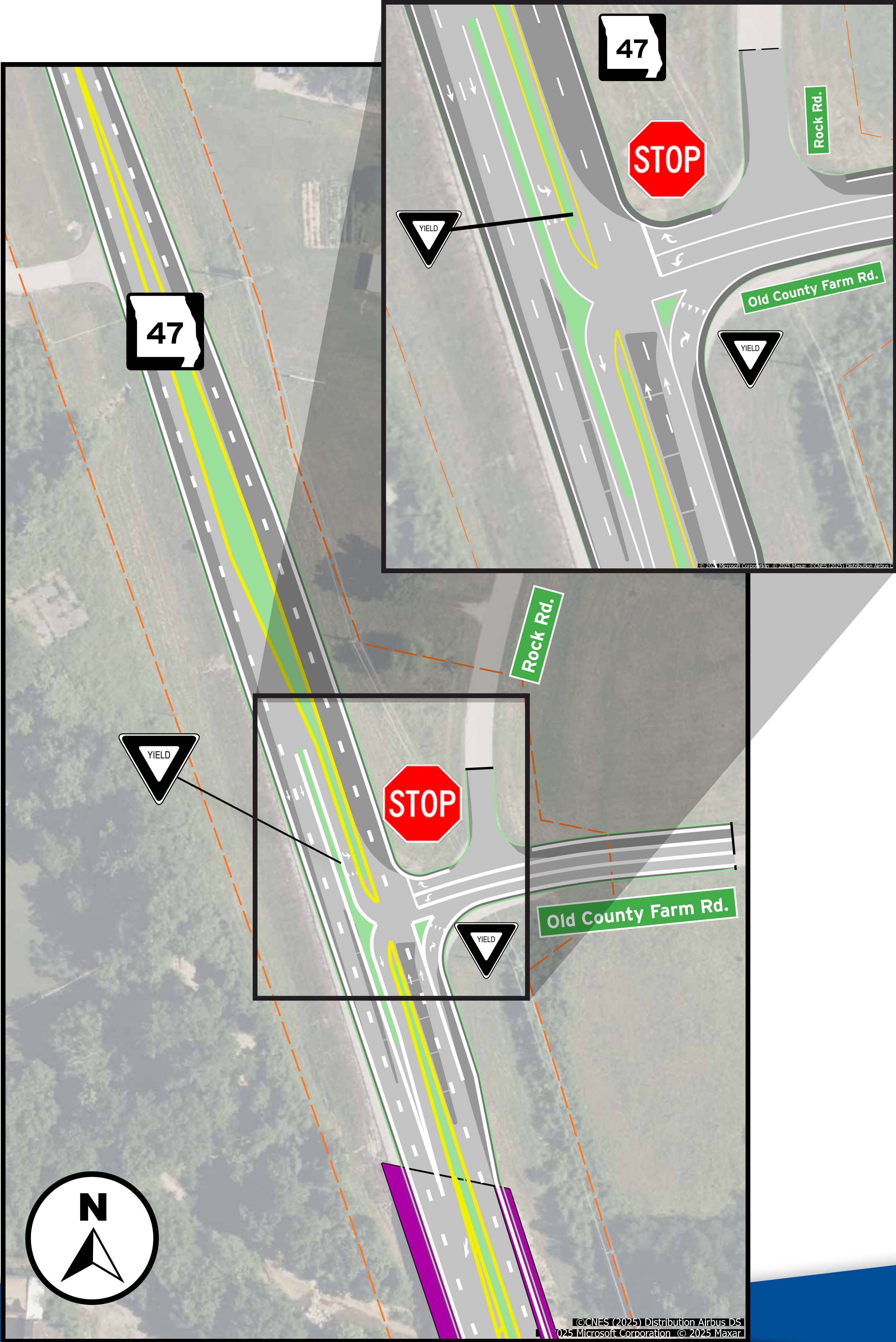
## (City of Union)

Legend	
	Existing Pavement
	Proposed Pavement
	Proposed Shoulder
	Concrete Median or Island
	Proposed Bridge Widening
	Approx. Existing Right of Way

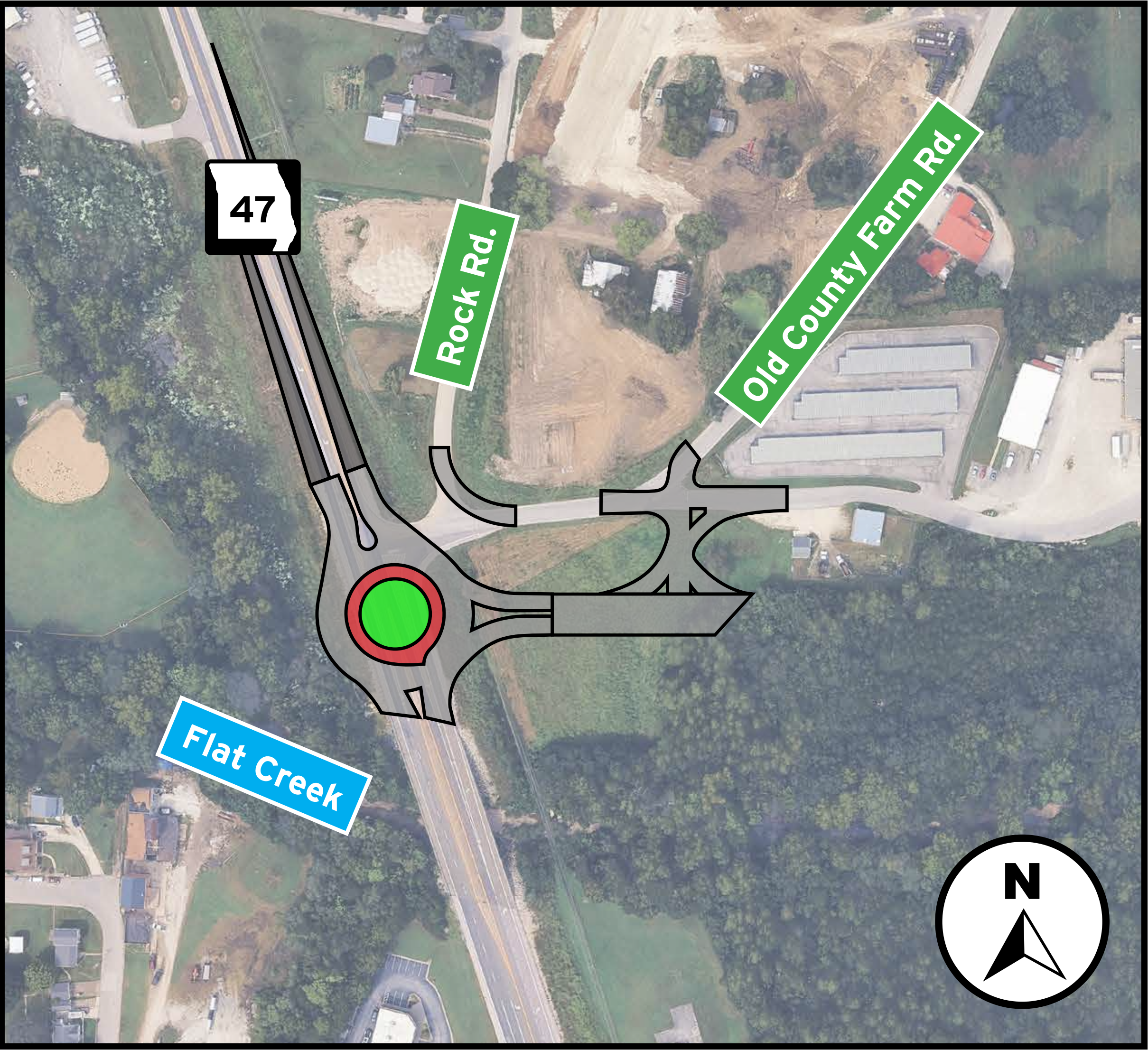
Highway V



Old County Farm Road  
(Green-T)








Old County Farm Road  
(Roundabout)



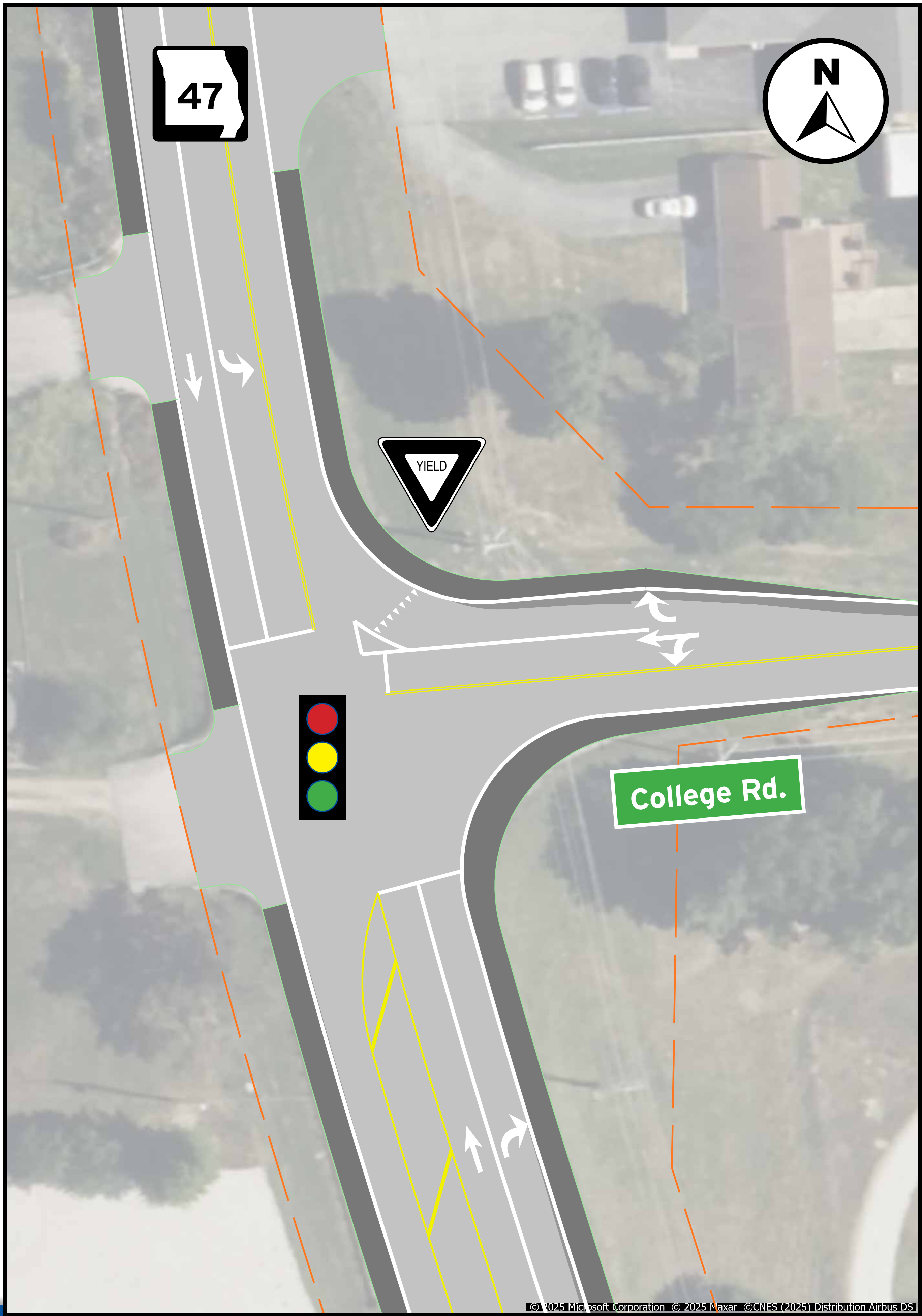


# Intersection Improvement Examples

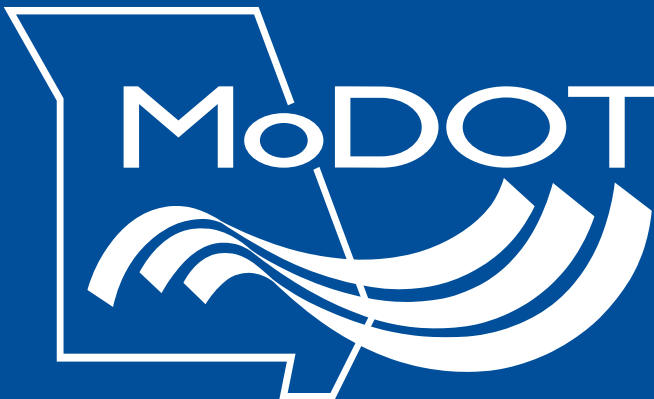
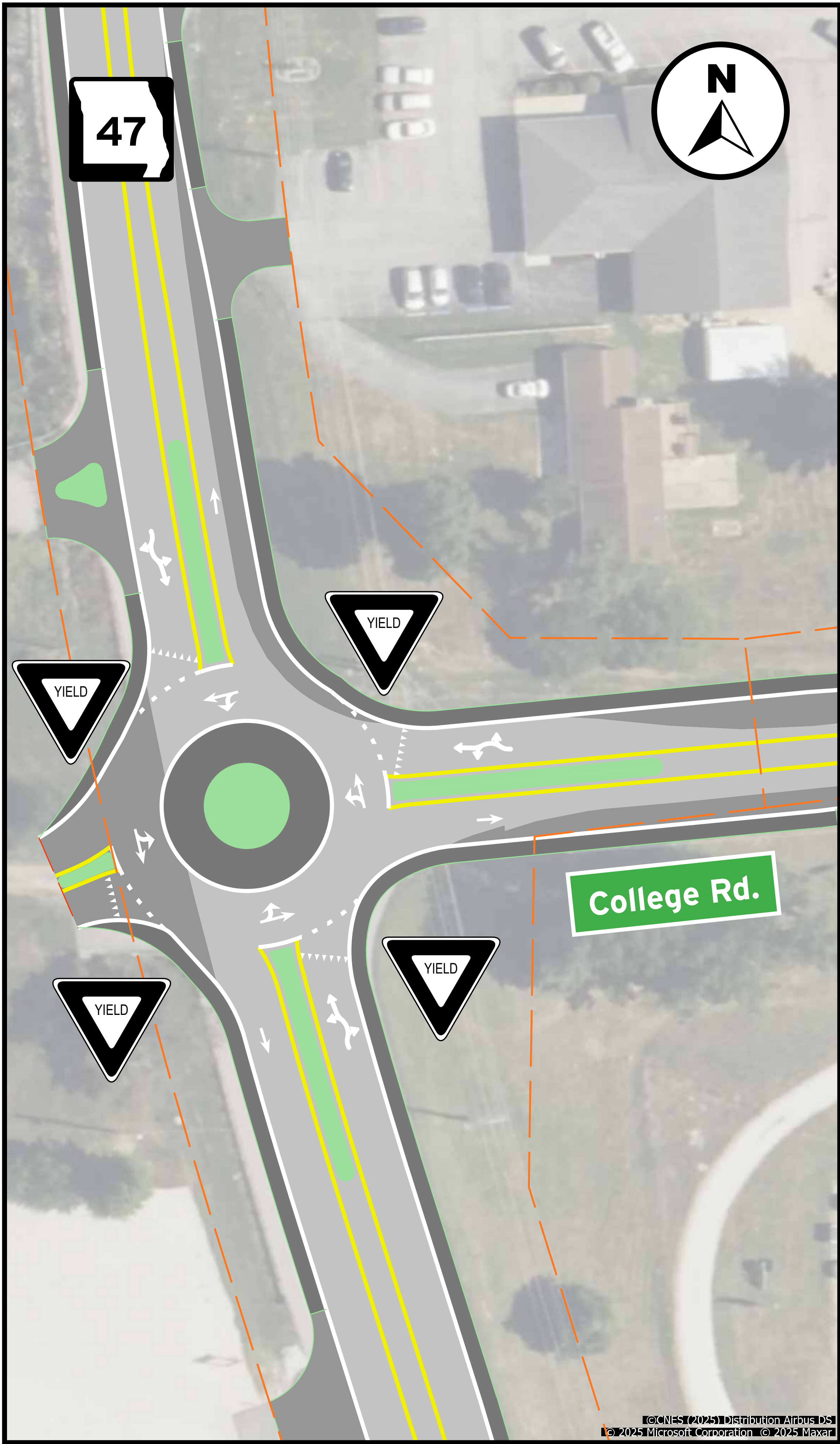
## (Union to St. Clair)

Legend	
	Existing Pavement
	Proposed Pavement
	Proposed Shoulder
	Concrete Median or Island
	Approx. Existing Right of Way

College Road:  
(Signal)








College Road:  
(Roundabout)



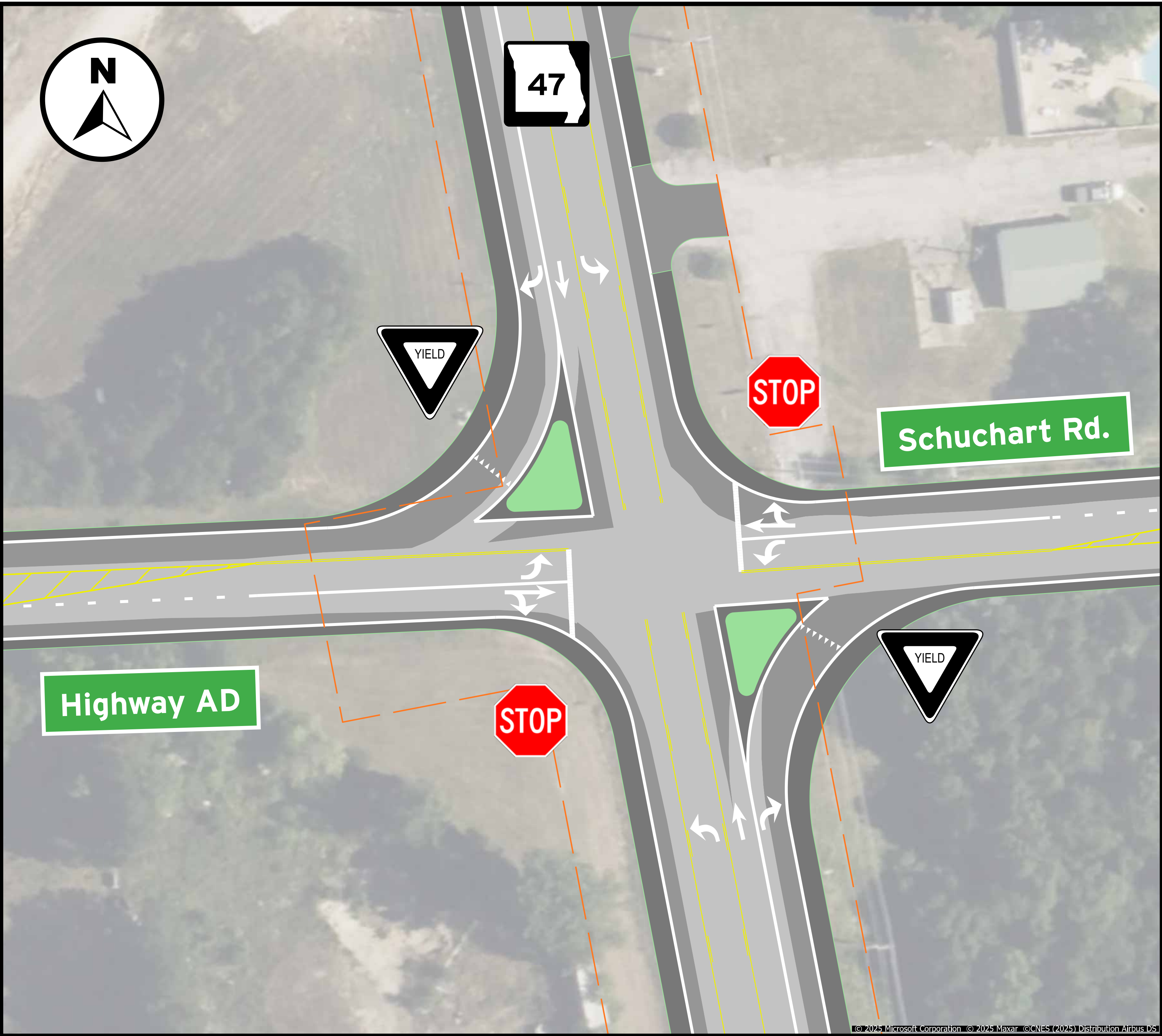


# Intersection Improvement Examples

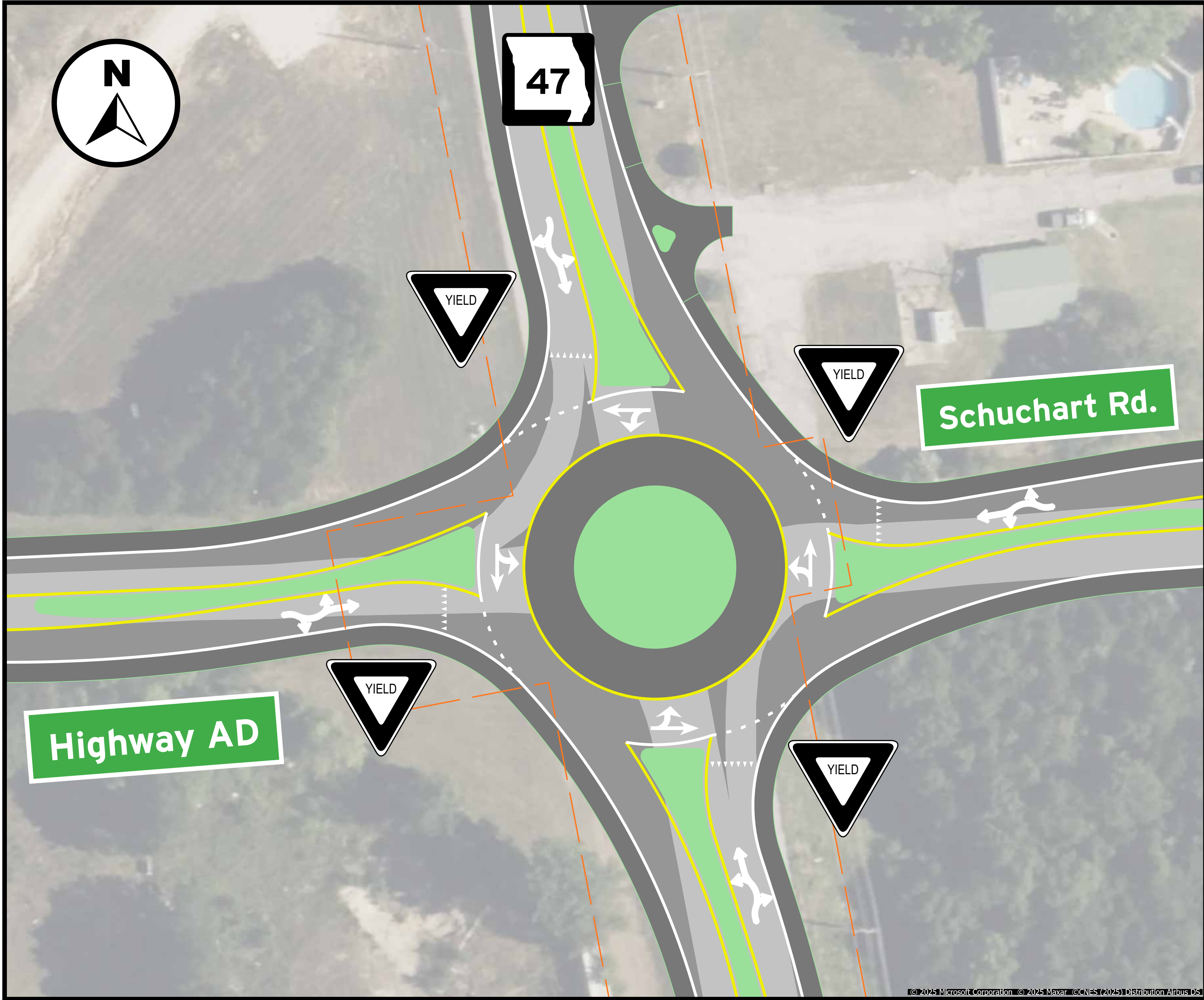
(Union to St. Clair)

Legend	
	Existing Pavement
	Proposed Pavement
	Proposed Shoulder
	Concrete Median or Island
	Approx. Existing Right of Way

## Hwy AD/Schuchart Rd. (Turn Lane Improvements)



## Hwy AD/Schuchart Rd. (Roundabout)








**\*\*This intersection is a high-crash location**



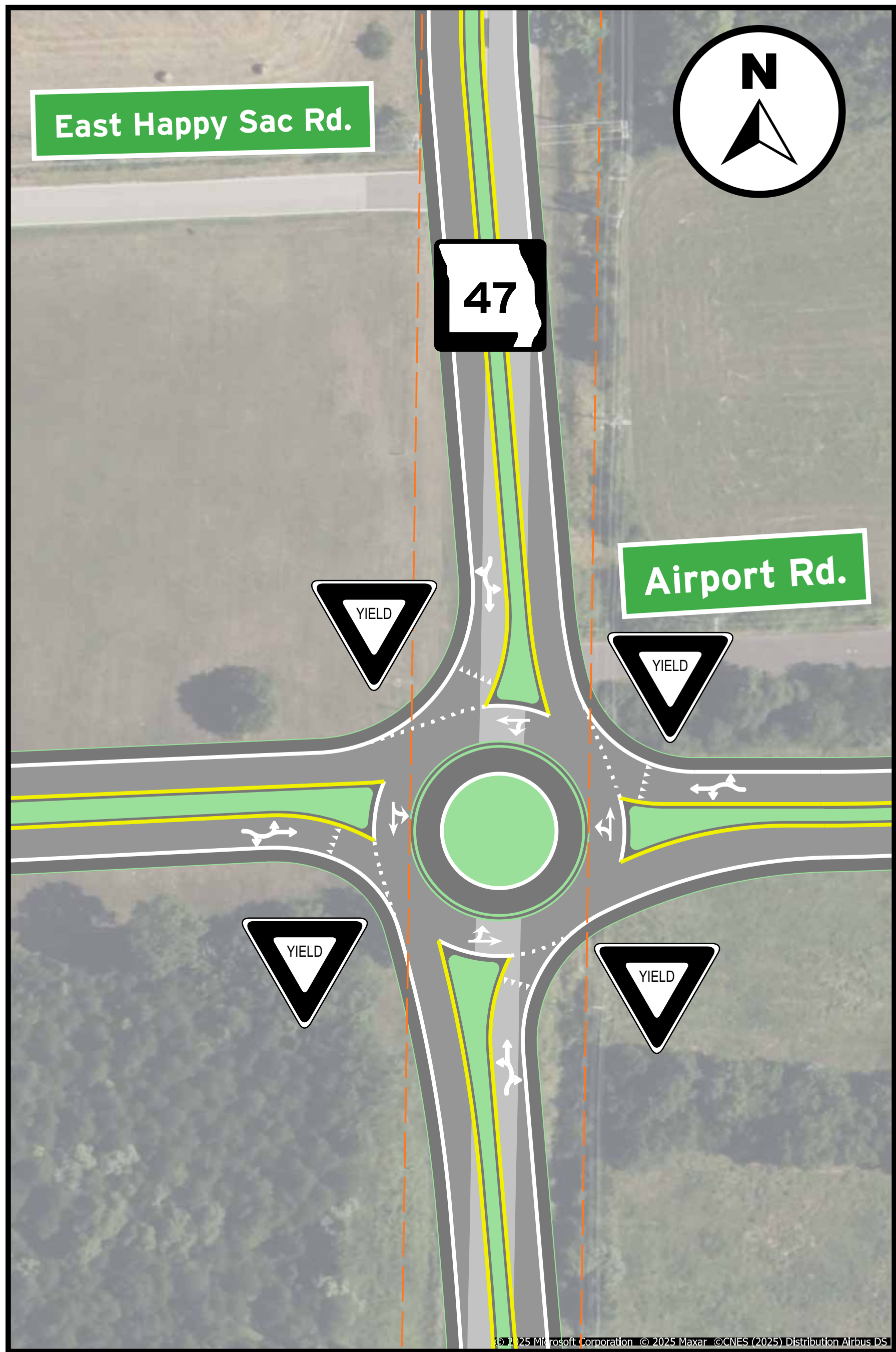


# Intersection Improvement Examples

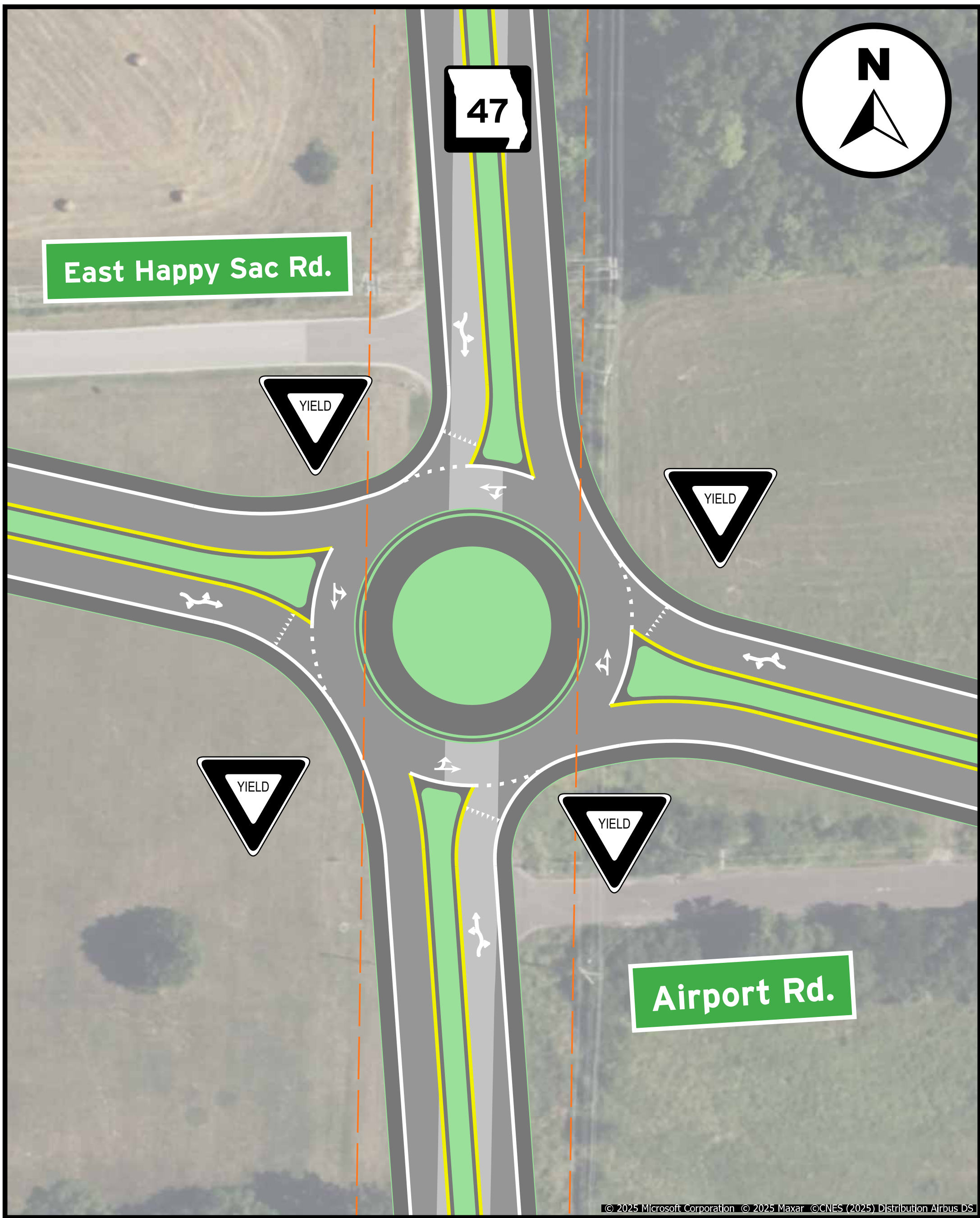
## (Union to St. Clair)

Legend	
	Existing Pavement
	Proposed Pavement
	Proposed Shoulder
	Concrete Median or Island
	Approx. Existing Right of Way

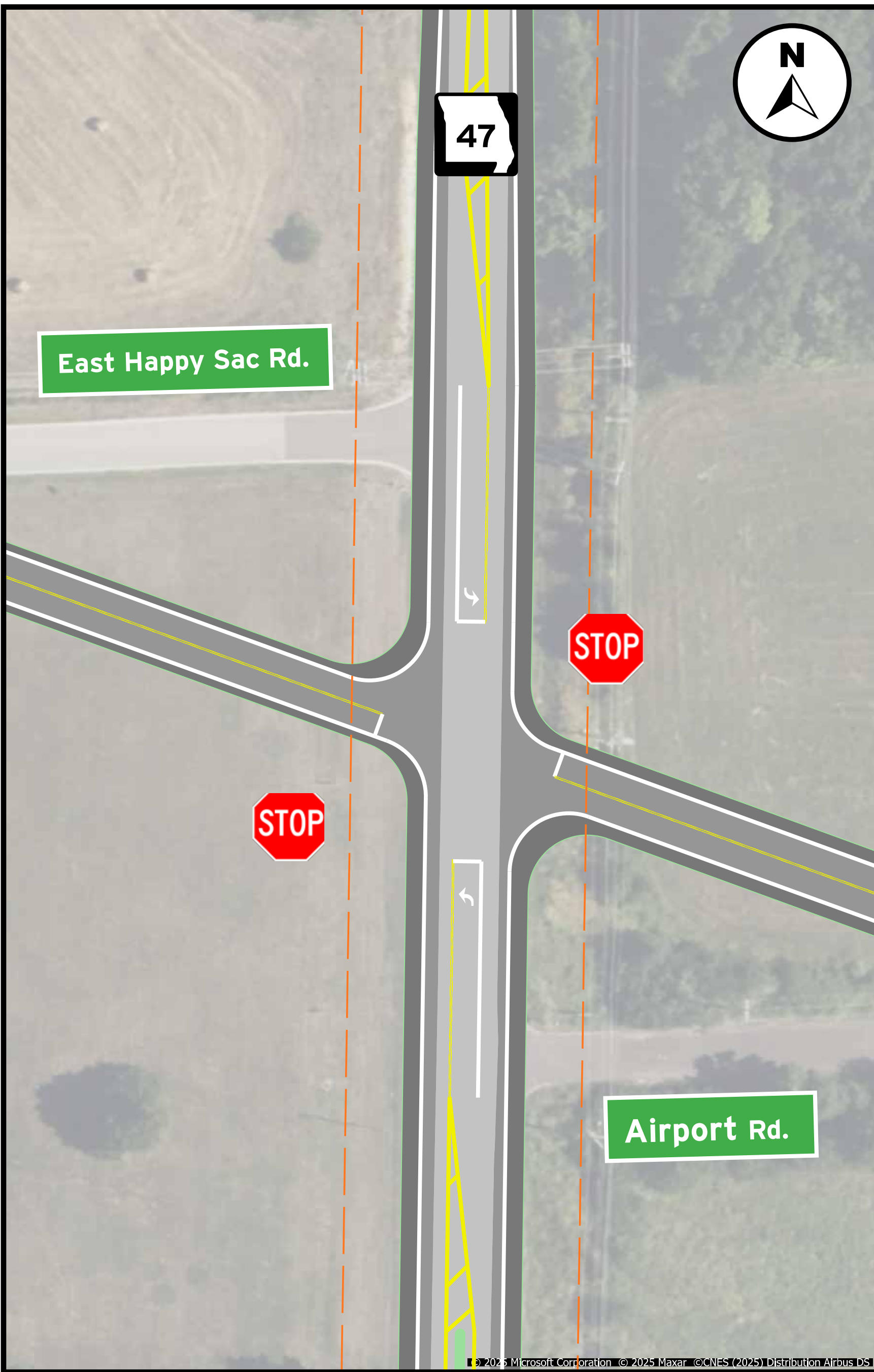
E. Happy Sac / Airport Rd.  
(Roundabout – Example 1)



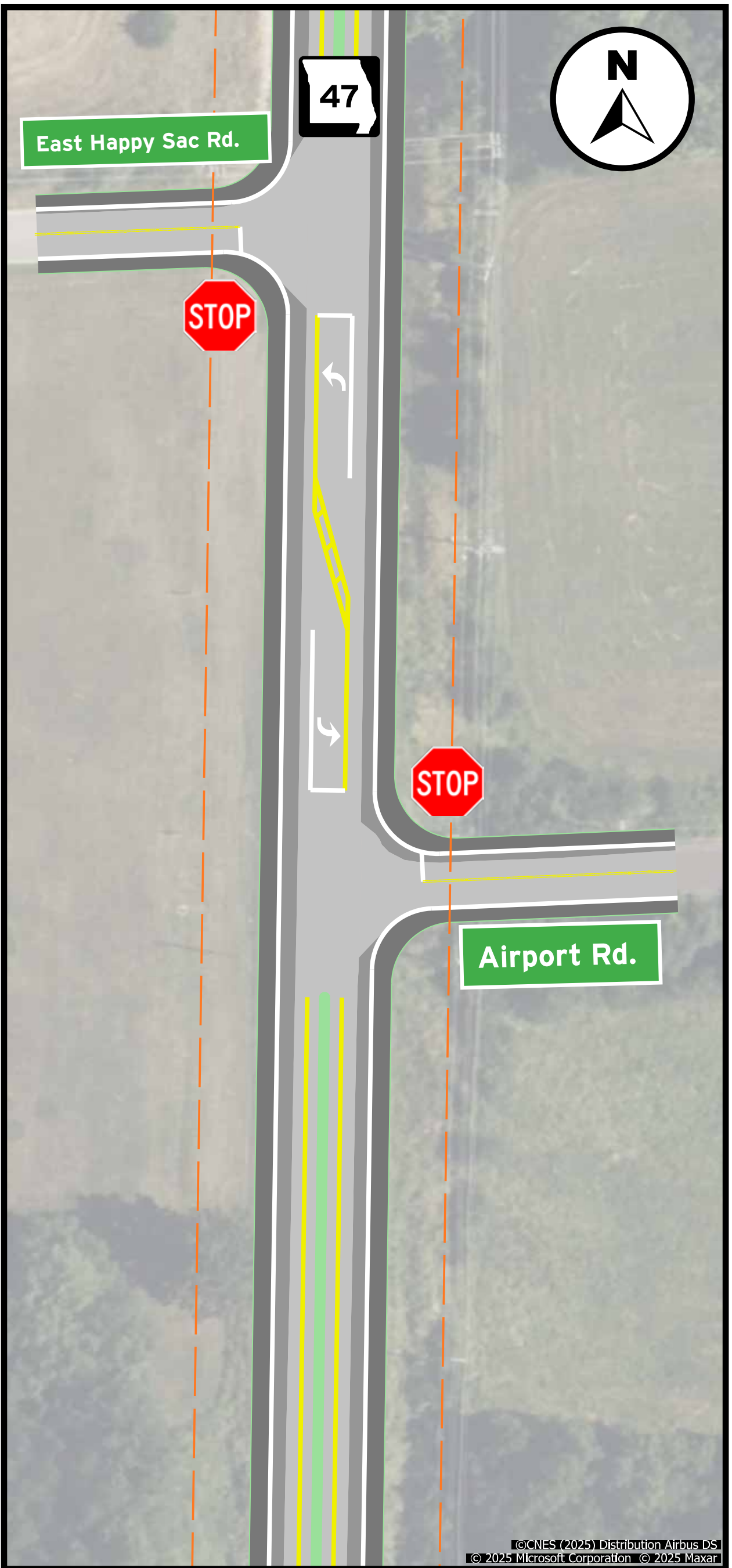
E. Happy Sac / Airport Rd.  
(Roundabout – Example 2)



E. Happy Sac / Airport Rd.  
(Realign / Turn Lane)



E. Happy Sac / Airport Rd.  
(Turn Lane)





# Next Steps

- Project Delivery Determination – Fall 2025
  - Design Bid Build / Design Build
- Design
  - Reasonable Alternative Selection
  - Funding
  - Environmental Investigations
  - Preliminary, Right-of-way and Final Design Phase
- Construction – FY2028

## ***Your input is important!***

Do you have comments on the corridor alternative concepts?  
Are we missing anything?

Scan the QR code or go to the following link to complete an online survey

<https://www.surveymonkey.com/r/Mo47PM2>



The survey will be available to complete until Thursday, October 23, 2025.

## **Project Contact Information**



**Future47@modot.mo.gov**



**www.modot.org/Future47**



**1-888-ASK-MODOT (275-6636)**

