

SR 54 at Hudson Road Roundabout Project



Excellence in Transportation **Every Trip.**

We strive to make every trip taken in Delaware safe, reliable and convenient for people and commerce.

Every Mode.

We provide safe choices for travelers in Delaware to access roads, rails, buses, airways, waterways, bike trails and walking paths.

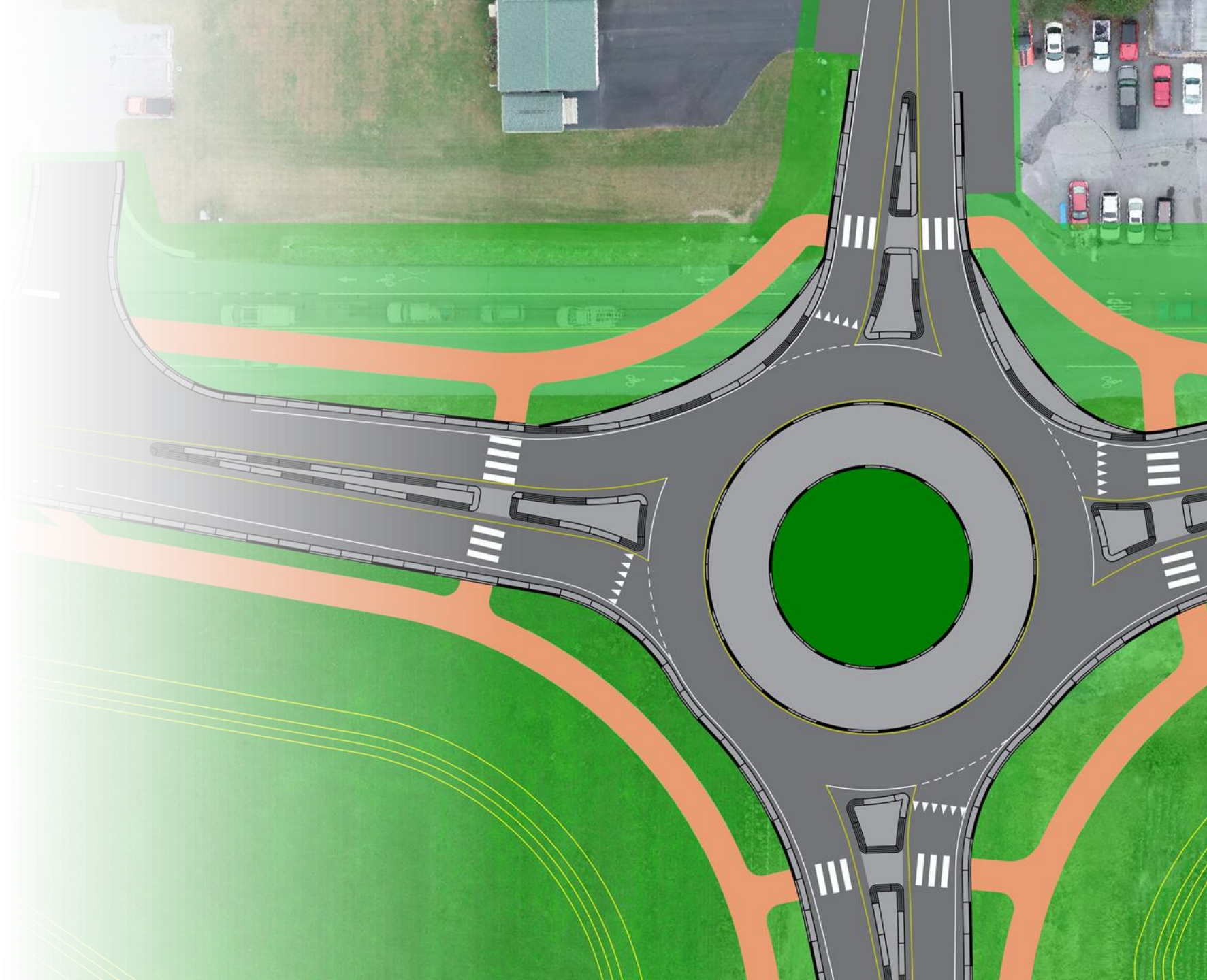
Every Dollar.

We seek the best value for every dollar spent for the benefit of all.

Everyone.

We engage our customers and employees with respect and courtesy as we deliver our services.

Overview



Overview

- Project Initiation



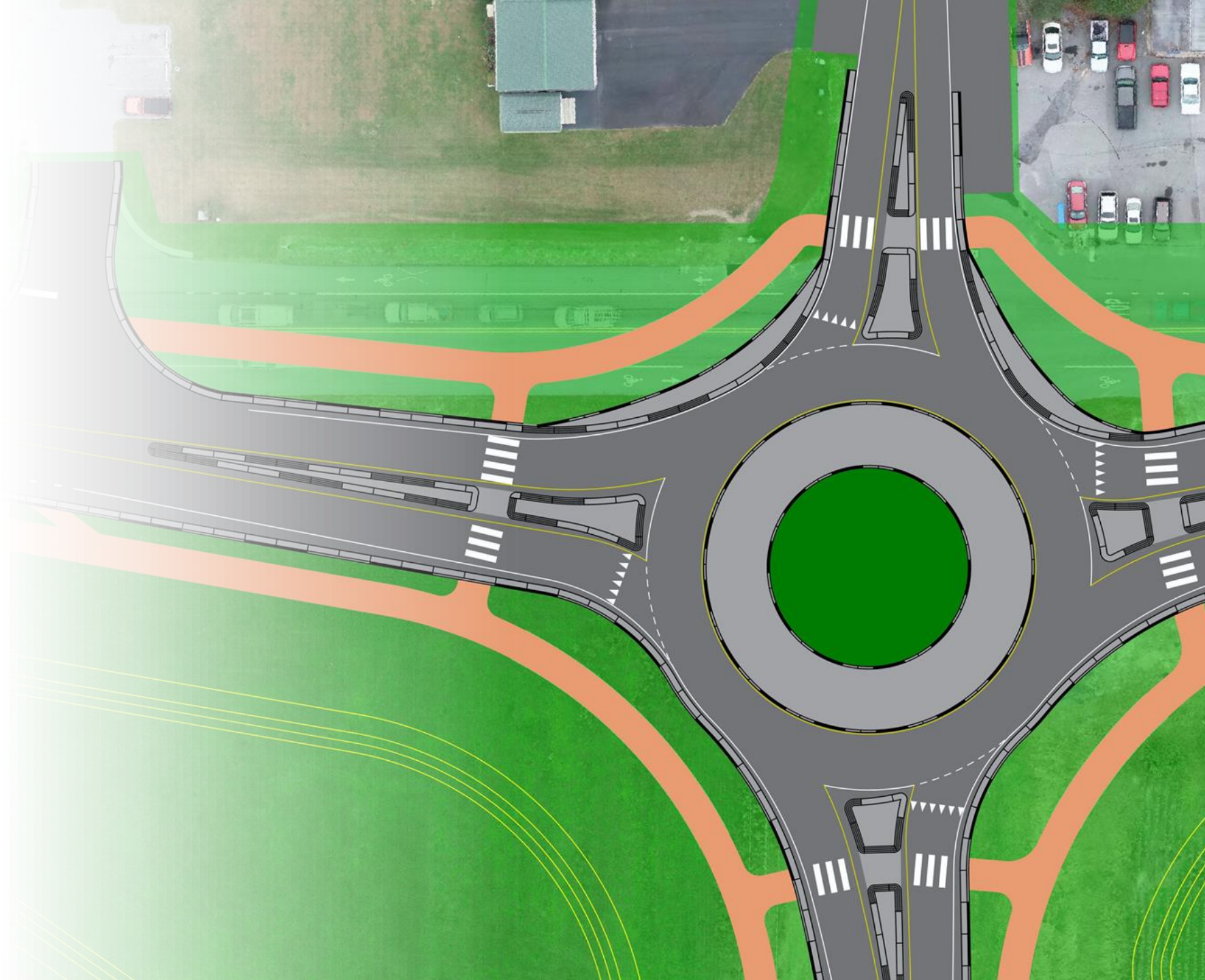
Overview

- Project Initiation
- Project Location



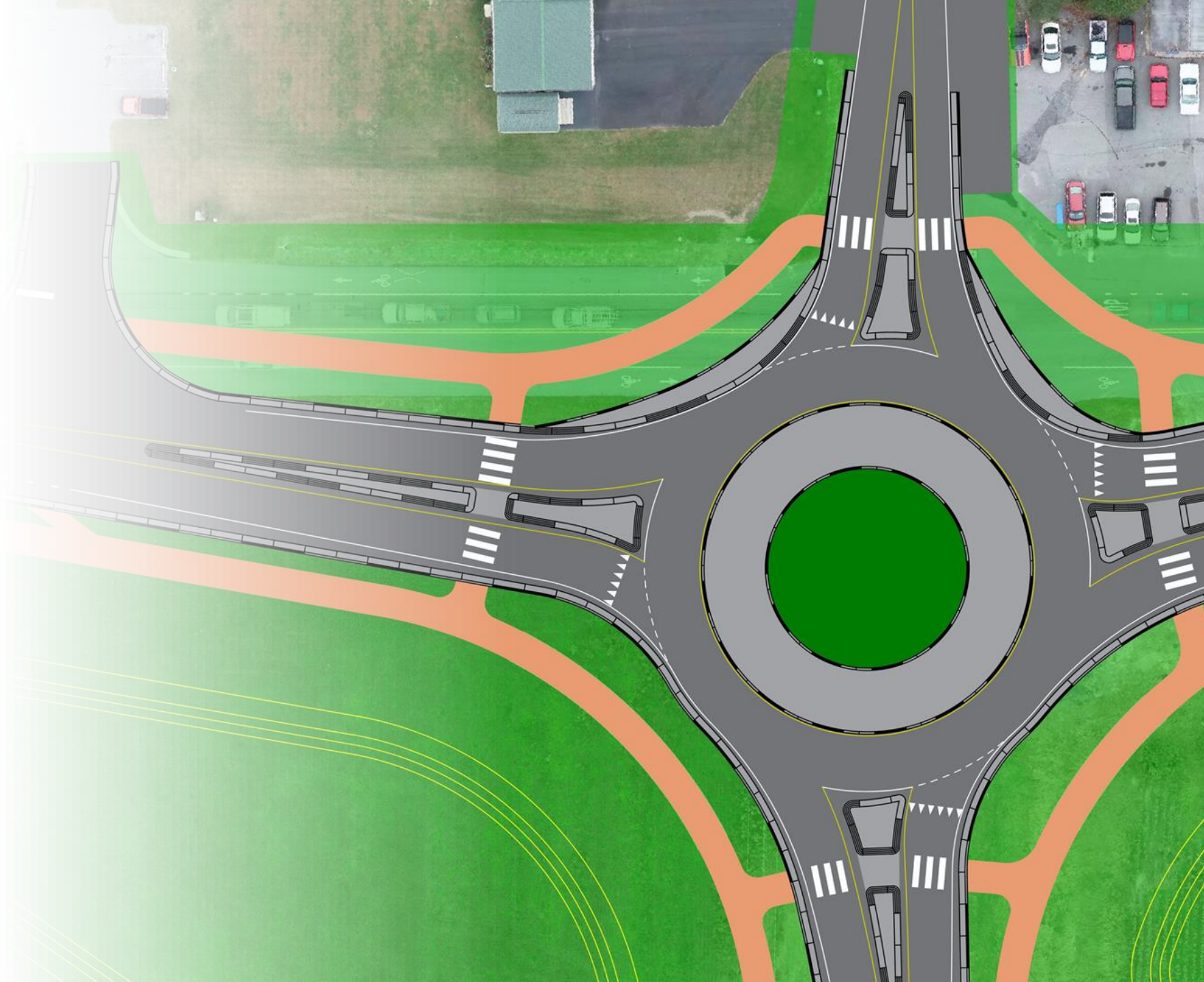
Overview

- Project Initiation
- Project Location
- Current and Future Development



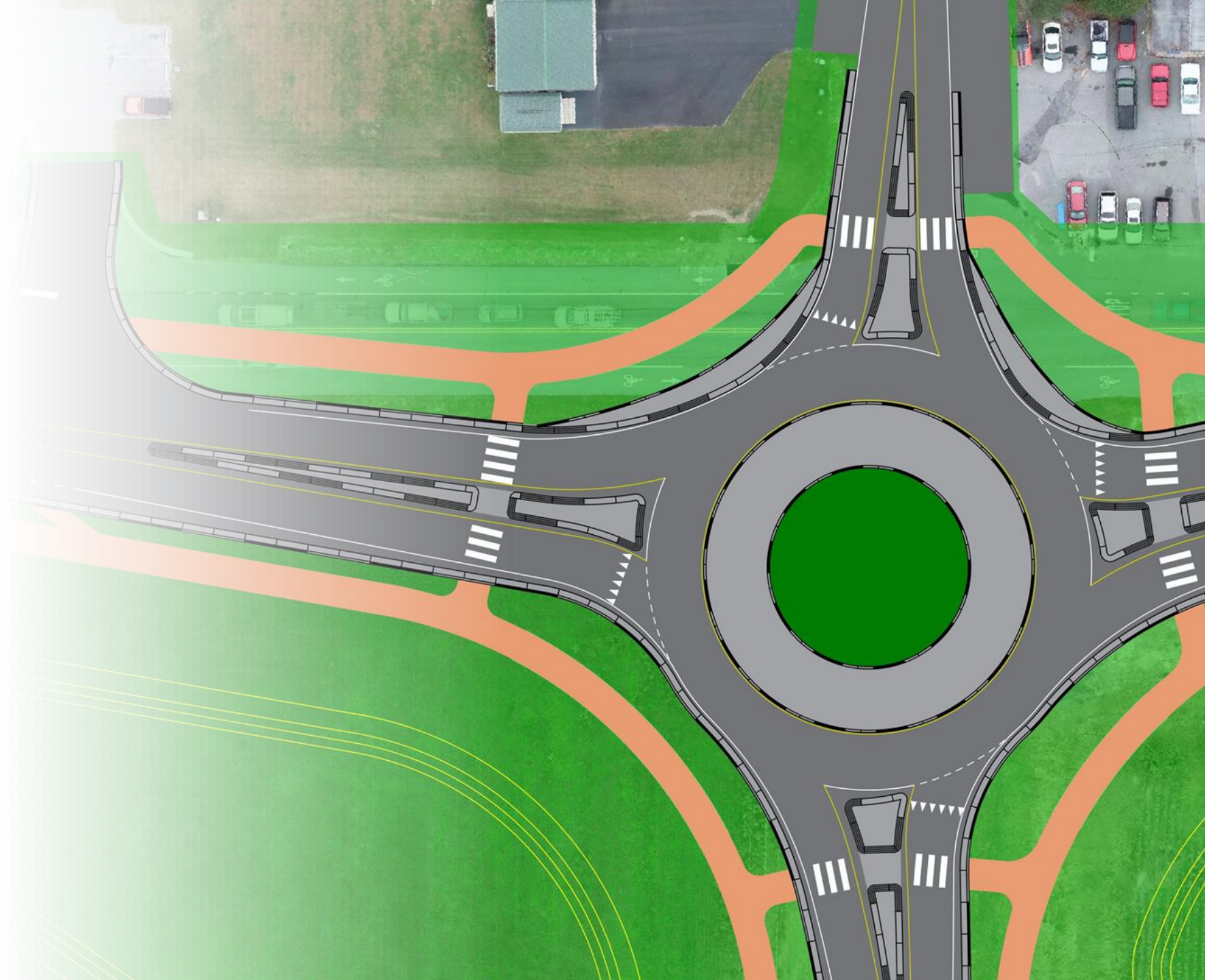
Overview

- Project Initiation
- Project Location
- Current and Future Development
- Existing Conditions



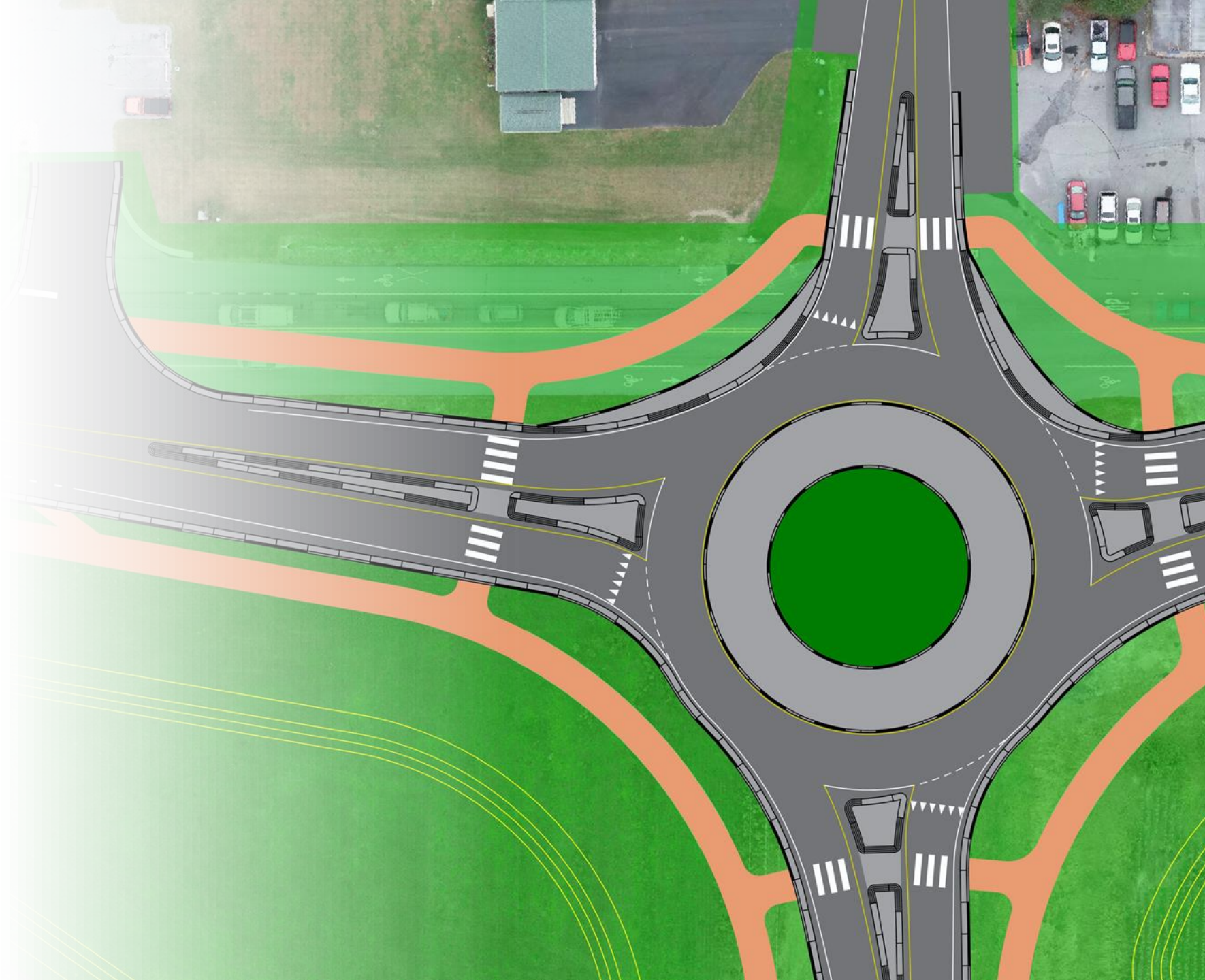
Overview

- Project Initiation
- Project Location
- Current and Future Development
- Existing Conditions
- Preliminary Design



Overview

- Project Initiation
- Project Location
- Current and Future Development
- Existing Conditions
- Preliminary Design
- Important Design Elements



Overview

- Project Initiation
- Project Location
- Current and Future Development
- Existing Conditions
- Preliminary Design
- Important Design Elements
- Construction and MOT

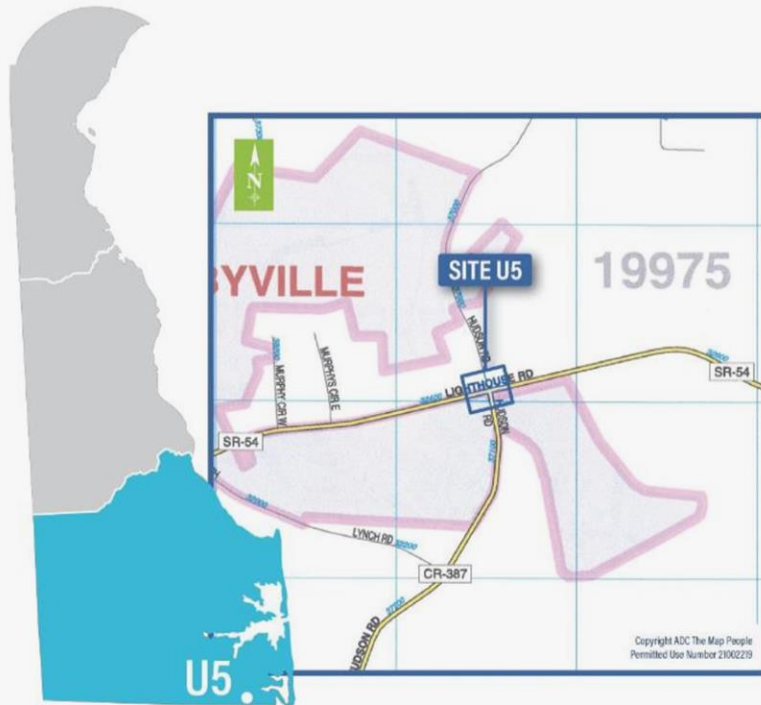


Project Initiation

2019 Hazard Elimination Program



SITE U-5: SR 54 (Lighthouse Road) at Hudson Road



Location

Selbyville, DE

Rank

177

AADT

SR 54: 3,515

Hudson Road: 2,700

Posted Speed Limit

SR 54: 50 MPH

Hudson Road: 45 MPH

Project Initiation

2019 Hazard Elimination Program

DelDOT WRA
SITE U-5: SR 54 at
Hudson Road

HCM6 Roundabout Analysis

- Volumes include projected traffic for two future developments
- Sufficient capacity for local and summer traffic

	Direction	Entry Volume	Entry Capacity	V/C Ratio	Percent Total Volume	
AM Peak	NB	208	1050	0.20	44%	Balanced major-minor road flows, suitable location
	SB	226	1030	0.22		
	EB	256	990	0.26	56%	
	WB	298	1200	0.25		
PM Peak	NB	319	1050	0.30	46%	Balanced major-minor road flows, suitable location
	SB	196	960	0.20		
	EB	232	1030	0.23	54%	
	WB	362	1100	0.33		

2019 Hazard Elimination Program

- Traffic studies

Project Initiation

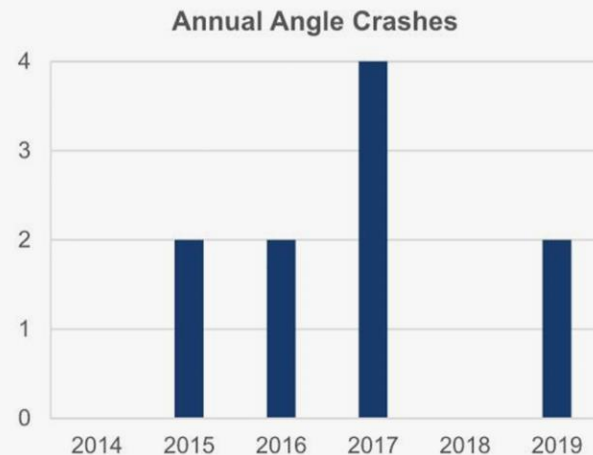
2019 Hazard Elimination Program

DelDOT WRA
SITE U-5: SR 54 at
Hudson Road

Crash Summary

17 crashes (Jan 2014 – Nov 2019)

- 10 angle crashes
 - 4 EB/SB (1 fatality)
 - 2 EB/NB (1 fatality)
 - 2 WB/SB
 - 1 EB/NB right-turn
 - 1 WB left-turn
- 4 crashes involving deer
- 2 roadway departure crashes



6-Sussex

2019 Hazard Elimination Program

- Traffic studies
- High frequency of angle crashes (59%)

Project Initiation

2019 Hazard Elimination Program

DelDOT WRA
SITE U-5: SR 54 at
Hudson Road

Corner Sight Distance Evaluations

Looking	Approach	From Stop Line	Criteria Met?	Beyond Stop Line	Criteria Met?
Left (555 ft required)	NB Hudson	720 ft	Yes	>1000 ft	Yes
	SB Hudson	325 ft	No	>1000 ft	Yes
Right (480 ft required)	NB Hudson	730 ft	Yes	>1000 ft	Yes
	SB Hudson	850 ft	Yes	>1000 ft	Yes



NB Hudson Road, Looking West
(from "Stop Line")



SB Hudson Road, Looking East
(from "Stop Line")

9-Sussex

2019 Hazard Elimination Program

- Traffic studies
- High frequency of angle crashes (59%)
- Sight distance concerns

Project Initiation

2019 Hazard Elimination Program


SITE U-5: SR 54 at
Hudson Road

Preliminary Recommendations

- Consider Through Route Activated Warning System (TRAWS) along SR 54 as step-wise improvement prior to AWSC
- Project nomination for roundabout
 - Previously recommended by DelDOT Traffic Studies
 - Accommodates future growth
 - Developer contributions
 - Right-of-way constraints

13-Sussex

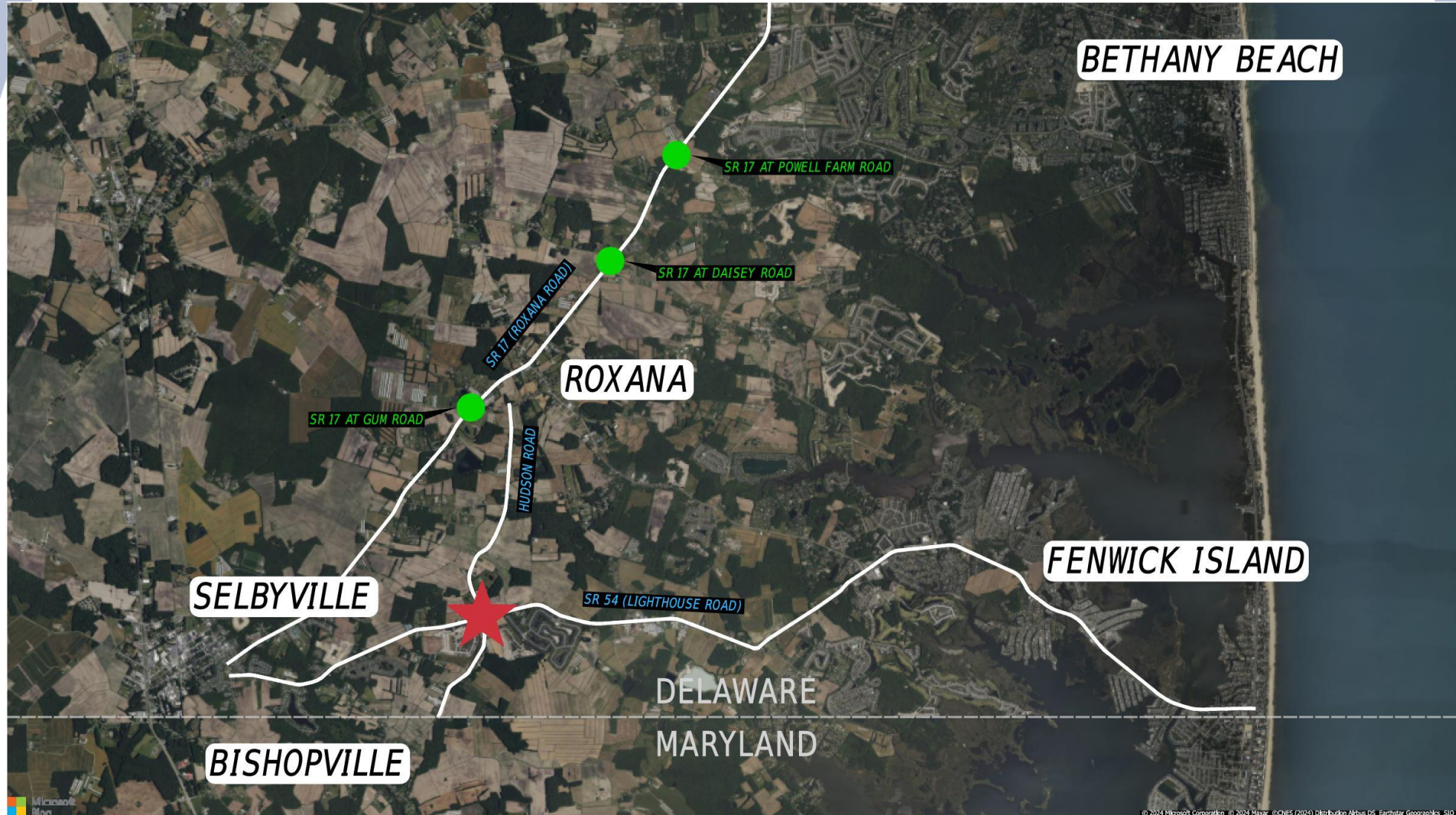
2019 Hazard Elimination Program

- Traffic studies
- High frequency of angle crashes (59%)
- Sight distance concerns
- Recommended short and long term safety improvements

Project Location



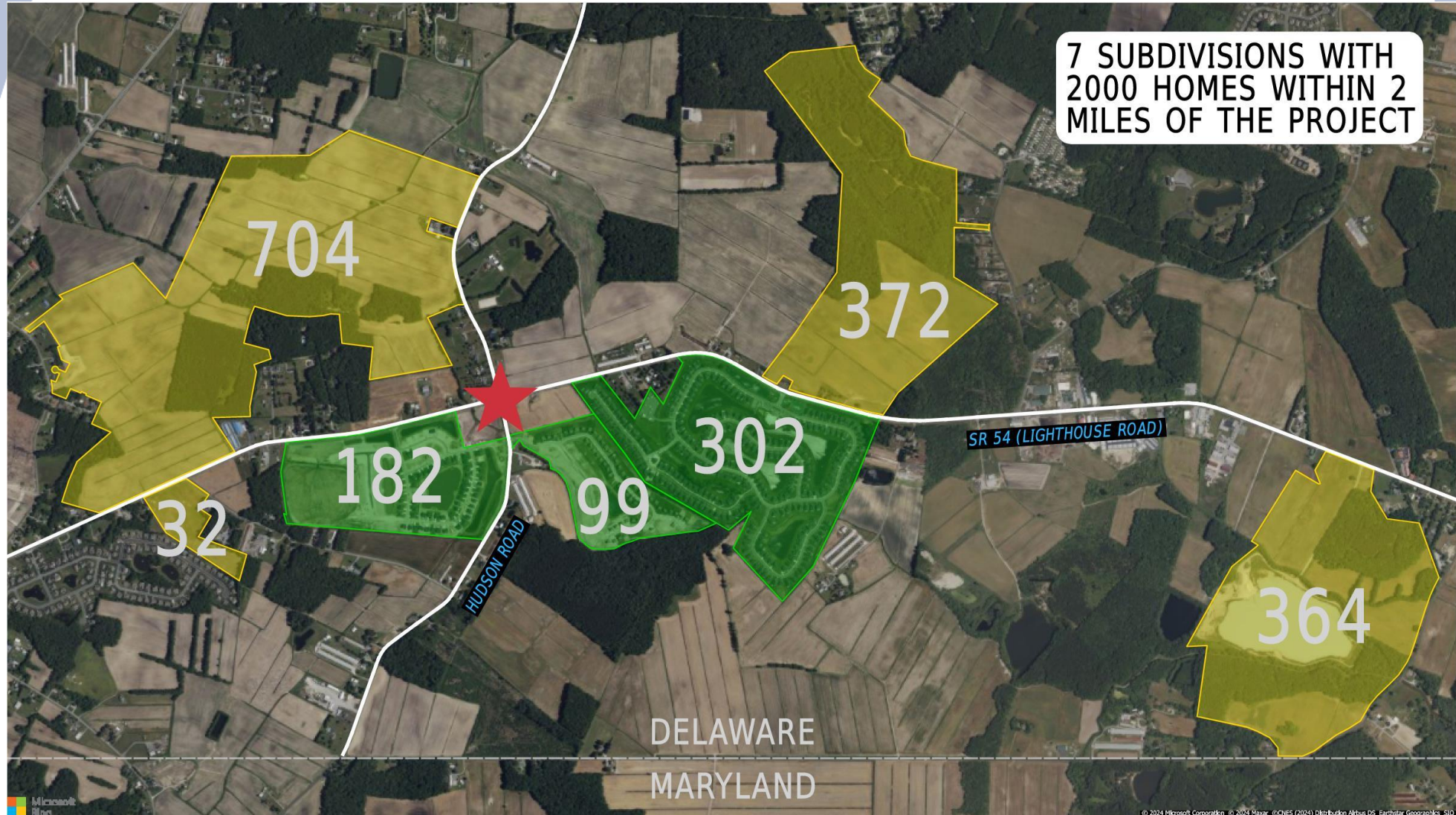
Project Location



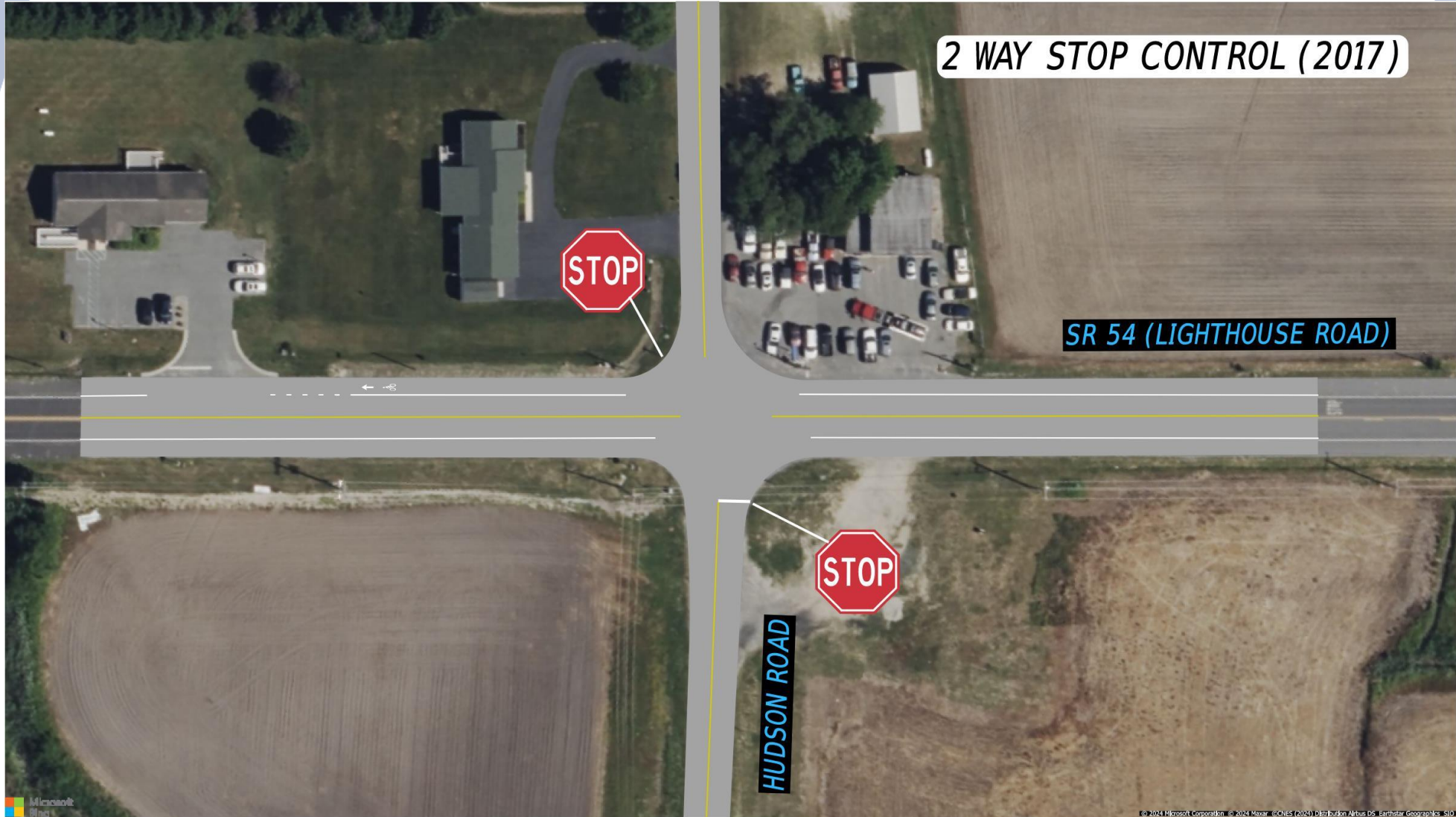
Development



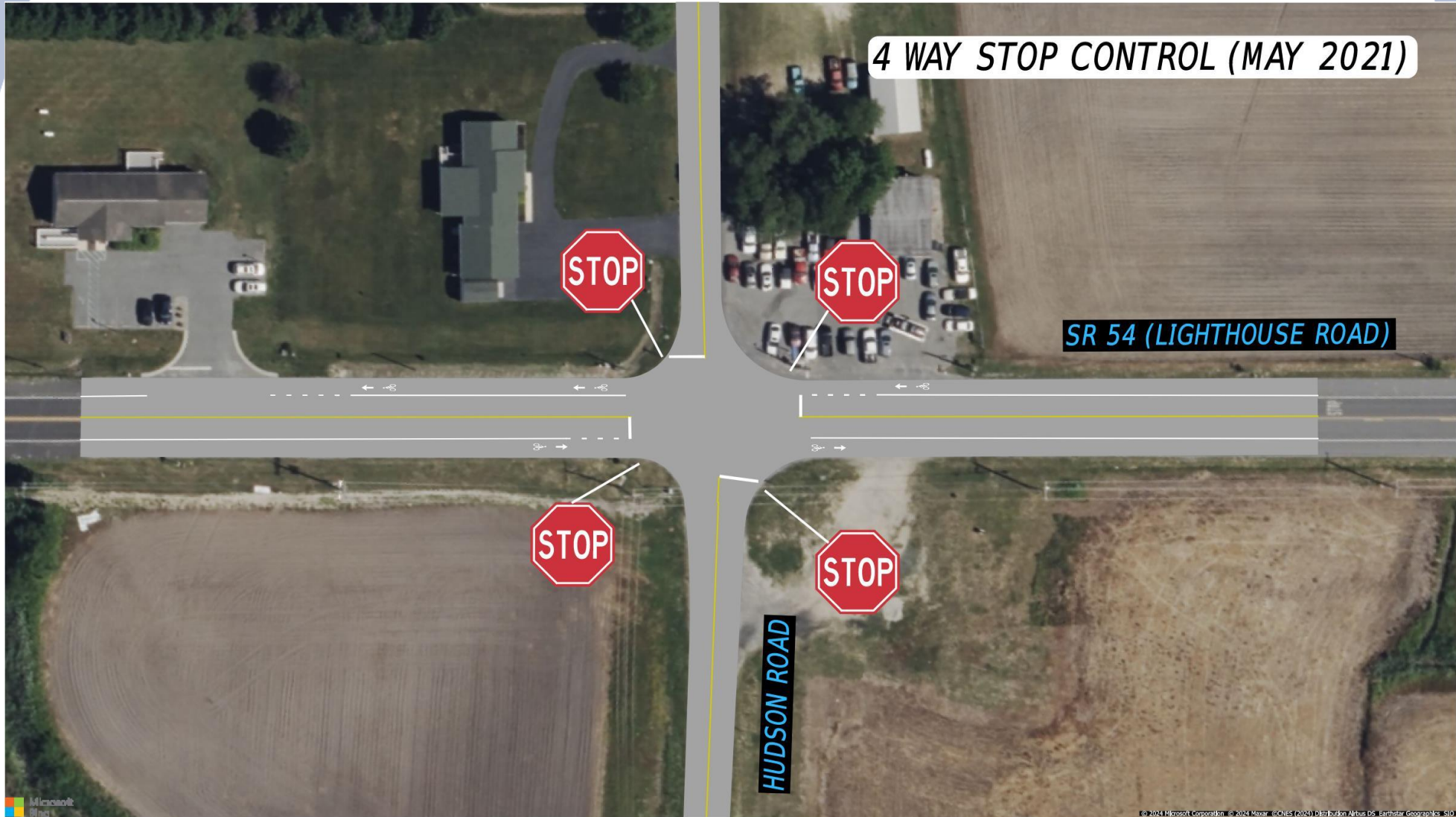
Development



Existing Conditions



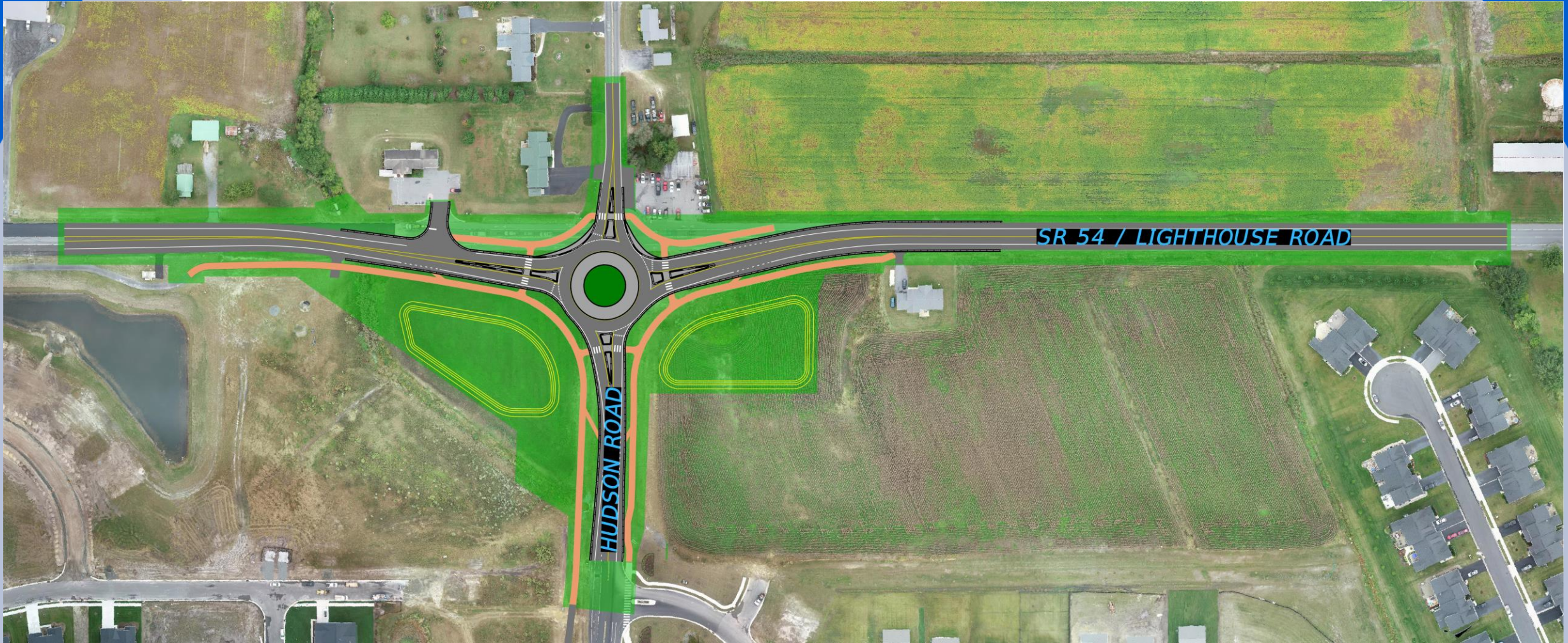
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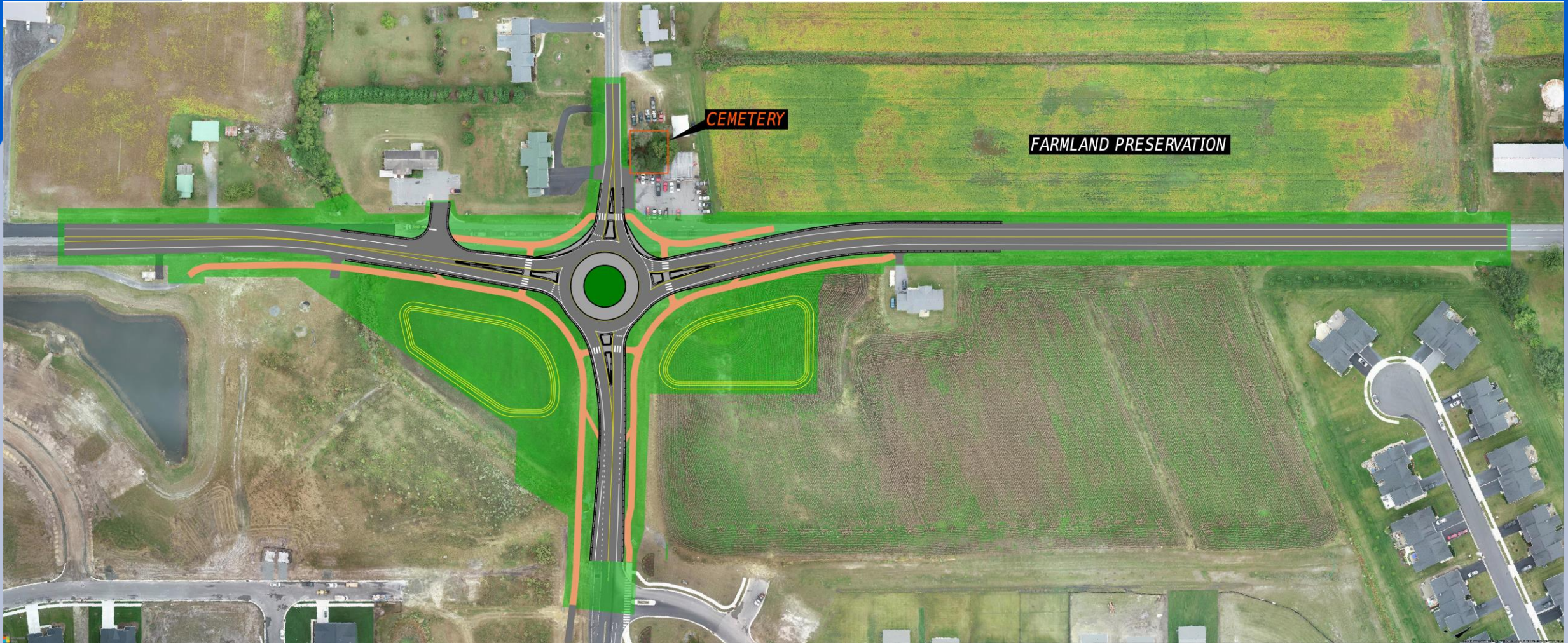
Additional Crash Data



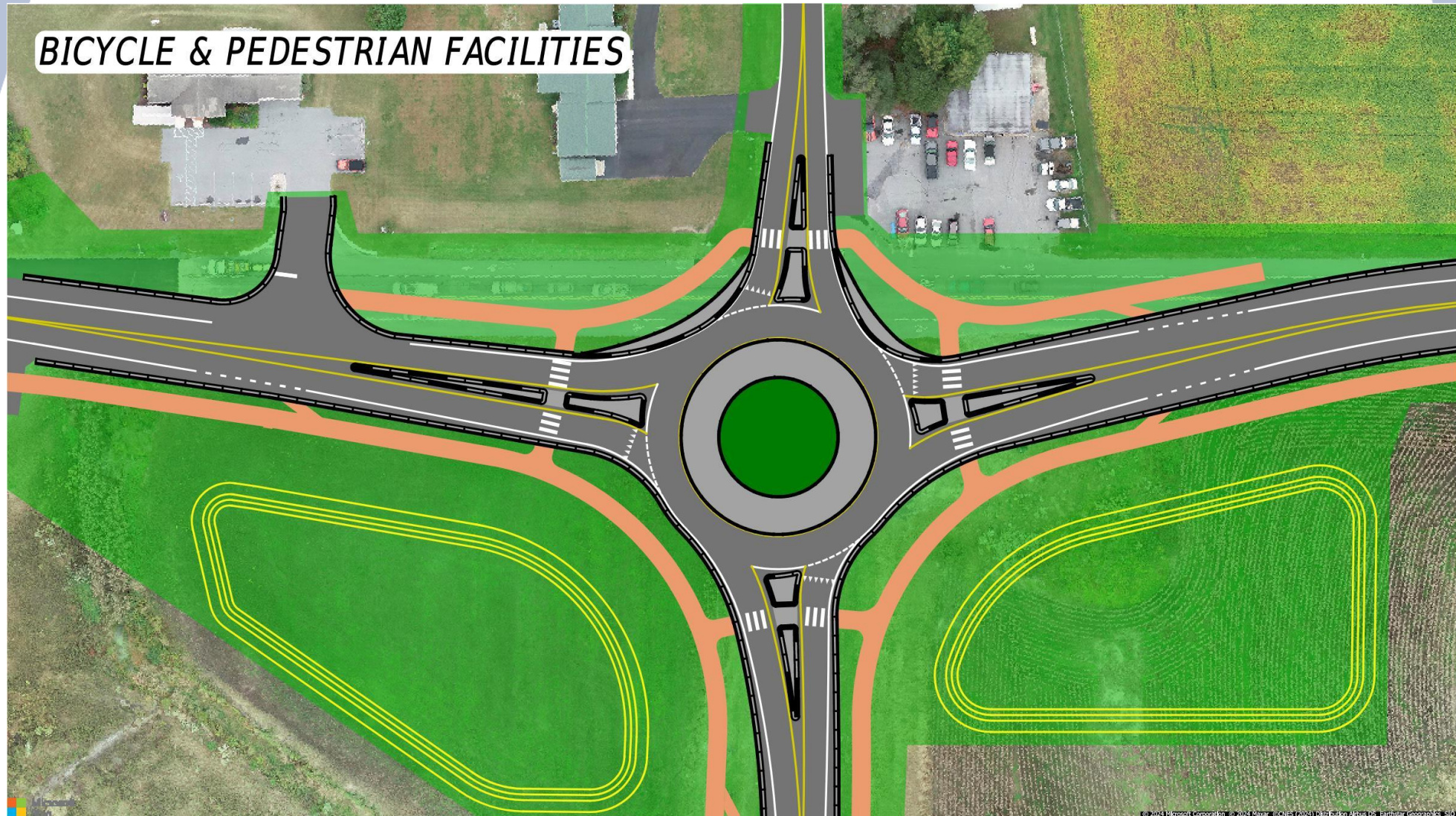
Preliminary Design



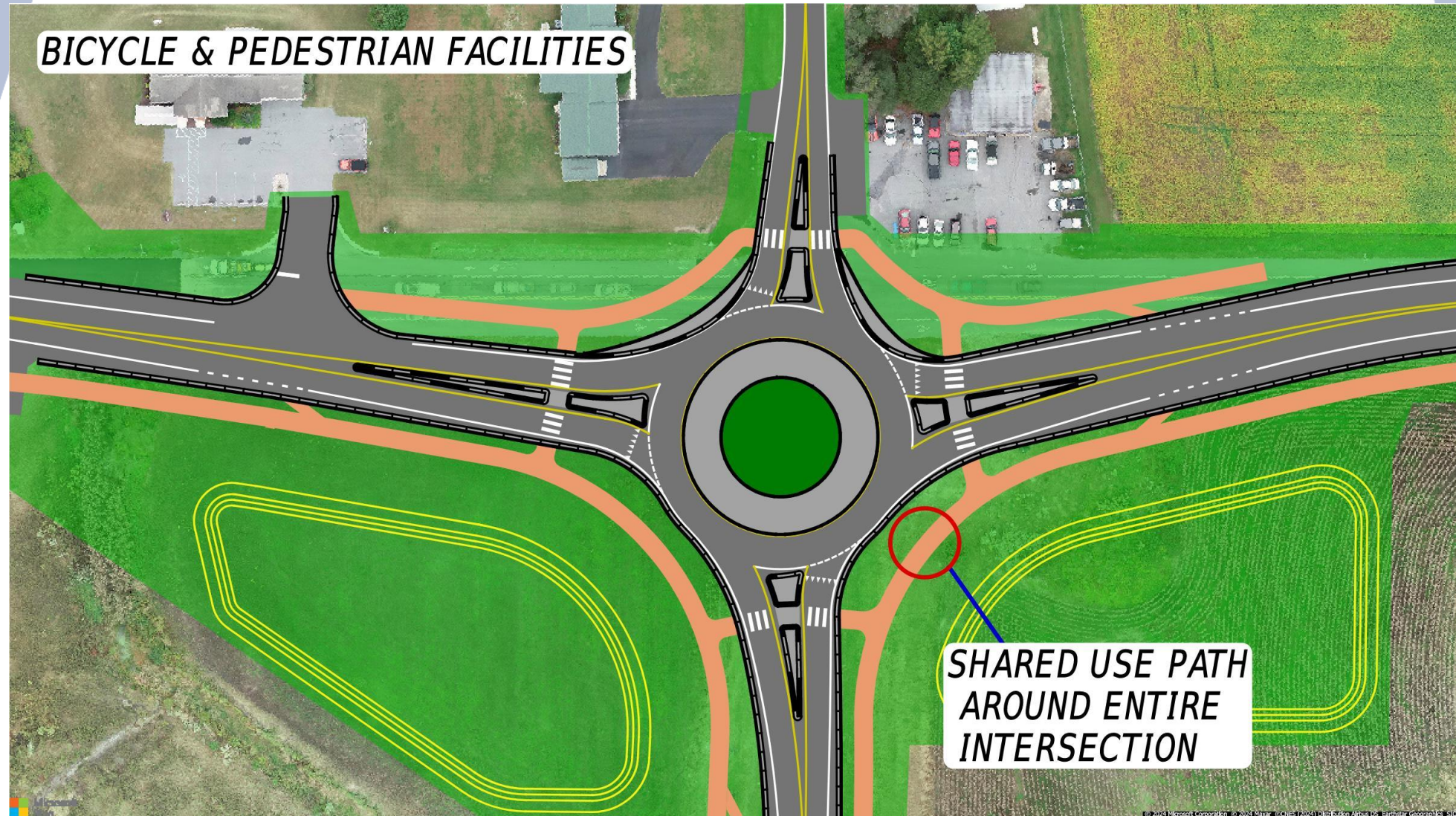
Preliminary Design



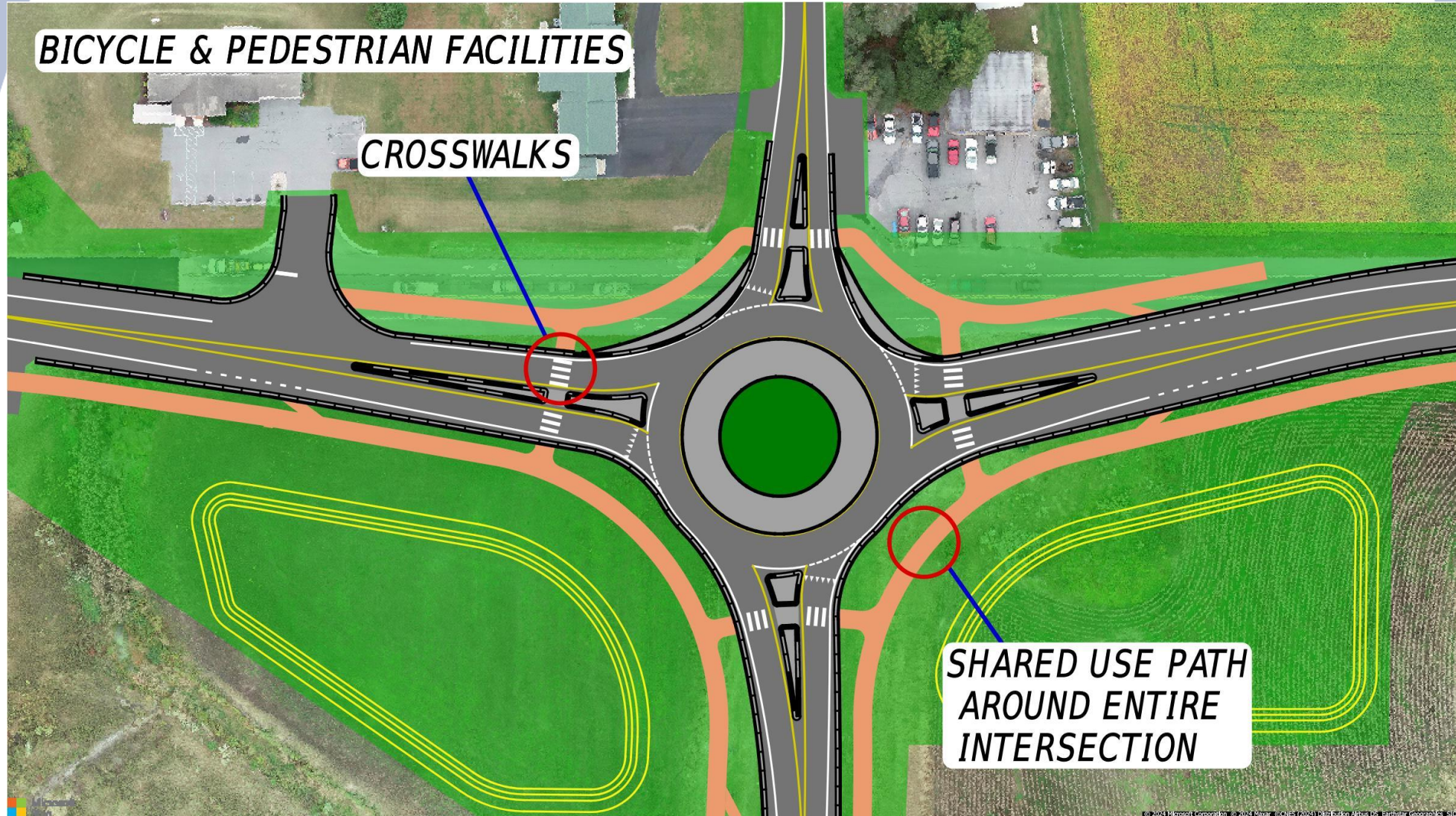
Design Features



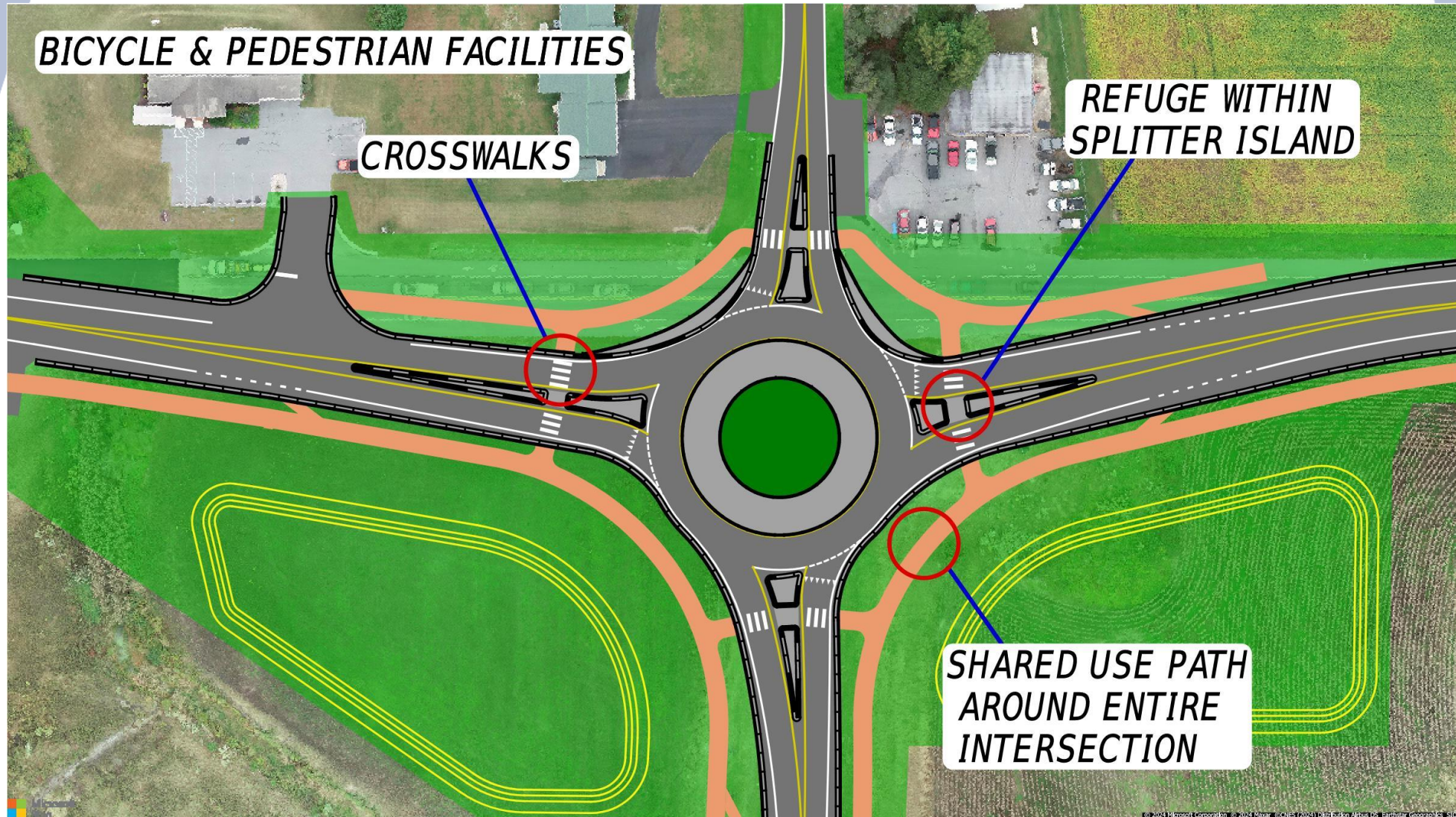
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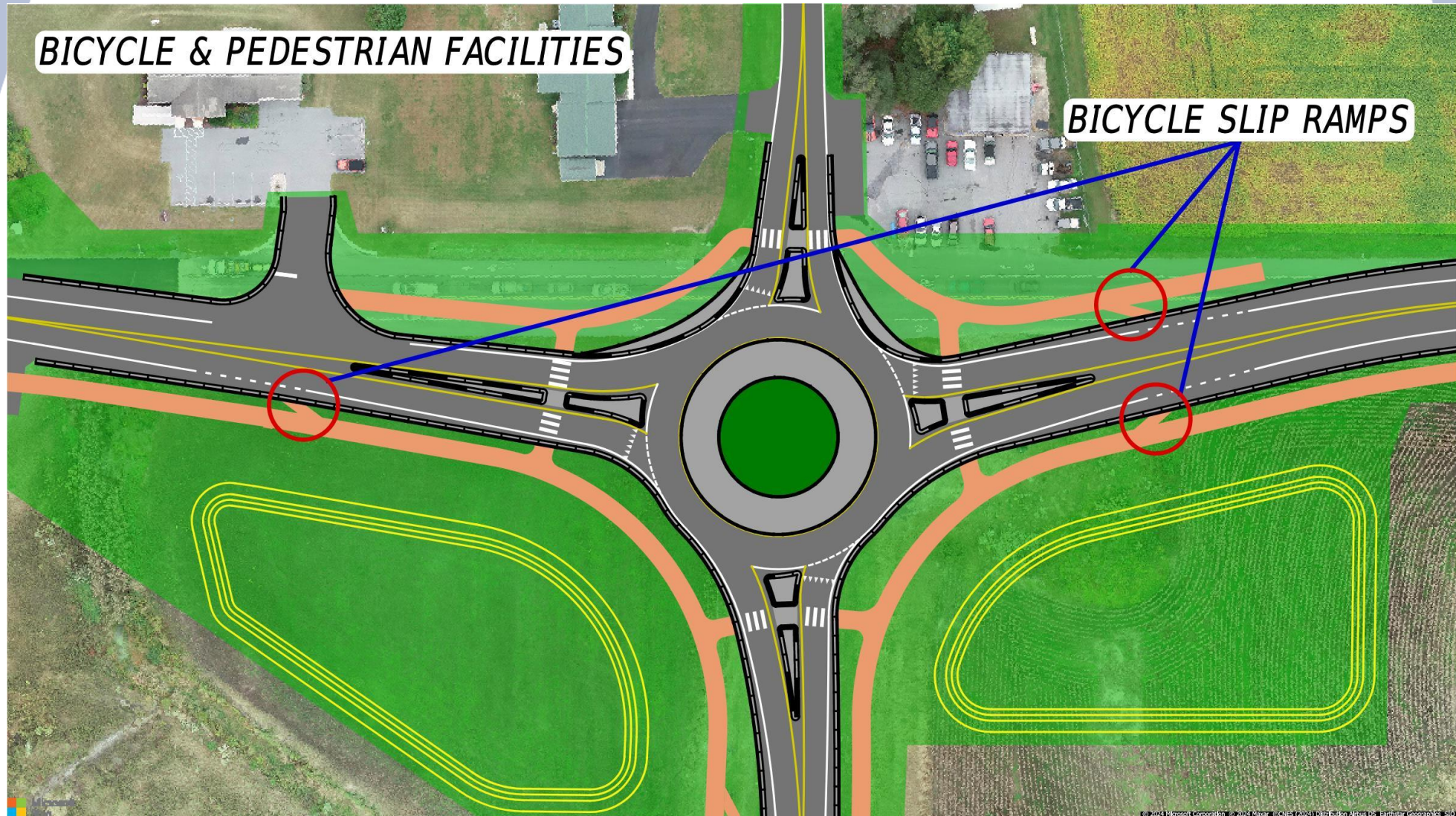
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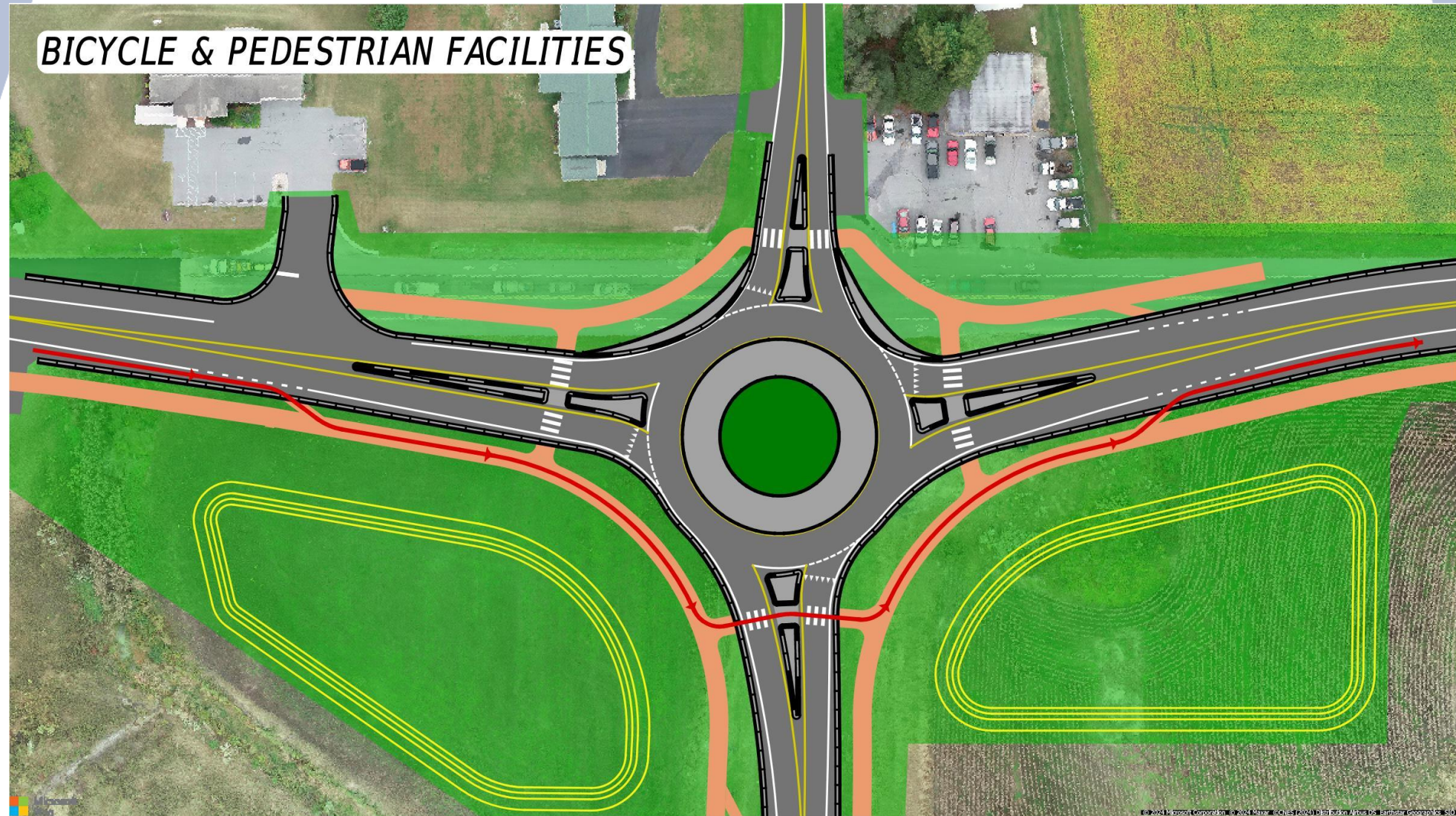
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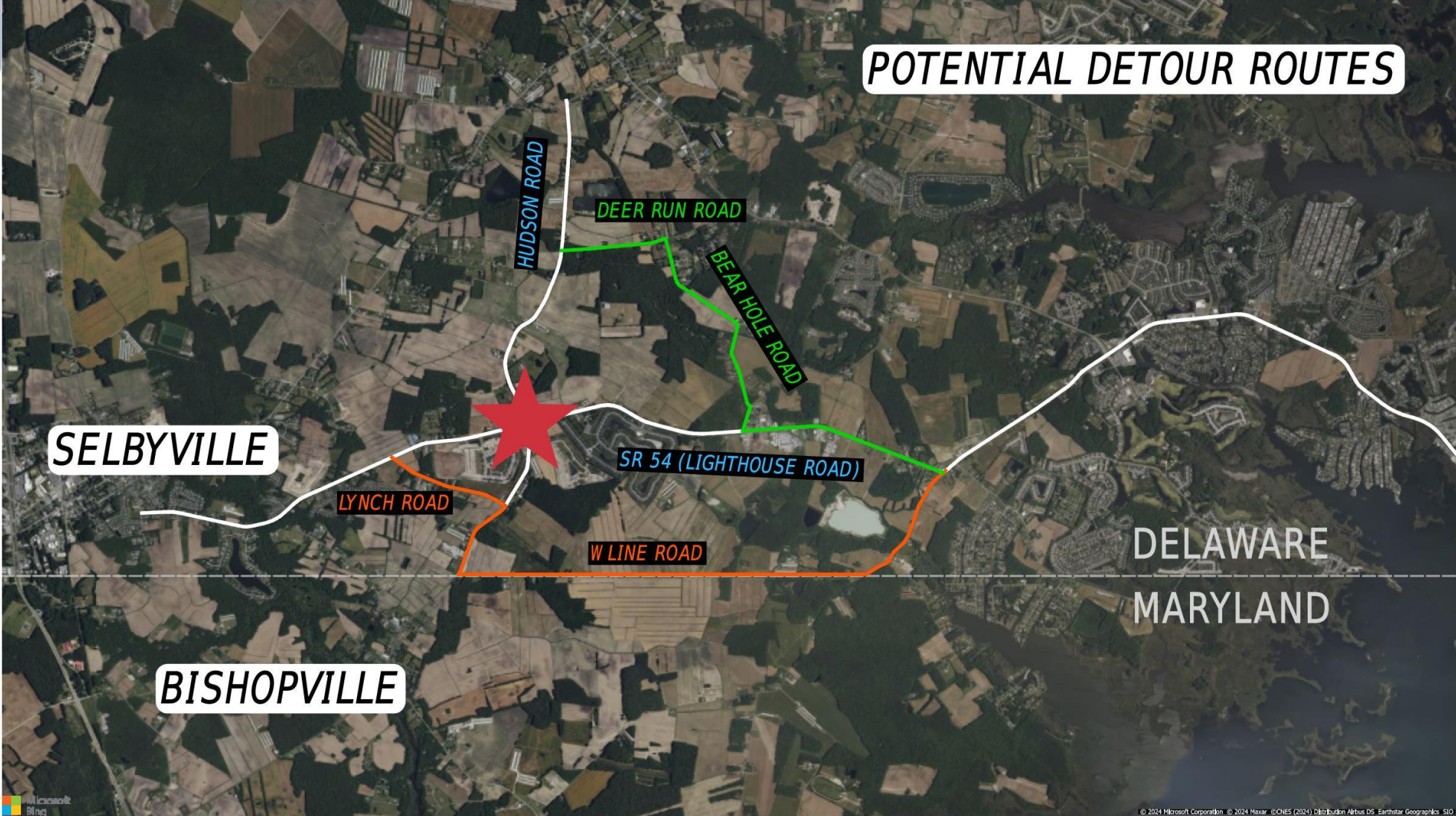
Design Features



Design Features



MOT During Construction



MOVING FORWARD

Project Schedule

- May 2024 Public Workshop
 - August 2024 Semi-Final Plans
 - February 2025 Begin Right of Way Acquisition
 - June 2026 Final Construction Plans
 - October 2026 PS&E
-
- Estimated Construction Duration = 6 months





**QUESTIONS &
COMMENTS**



THANK YOU!

Max Stong

Project Development South

Email: max.stong@delaware.gov



<https://linktr.ee/delawaredot>