West Main Street & Experiment Farm Road / South Stanfield Road Improvements Public Meeting

November 2026

MIA-SR41-11.72; PID 121678

Project History to Date

2020

Intersection Improvement Study

Intersection improvement evaluated for W Main St & Experiment Farm Rd



2021

Safety Study

Crash patterns & safety concerns documented for the corridor



2025

Alternative Evaluation

Current traffic counts & crash data collected & analyzed



June 2026

Council Presentation

Alternatives developed & presented for council review & approval

November 2026

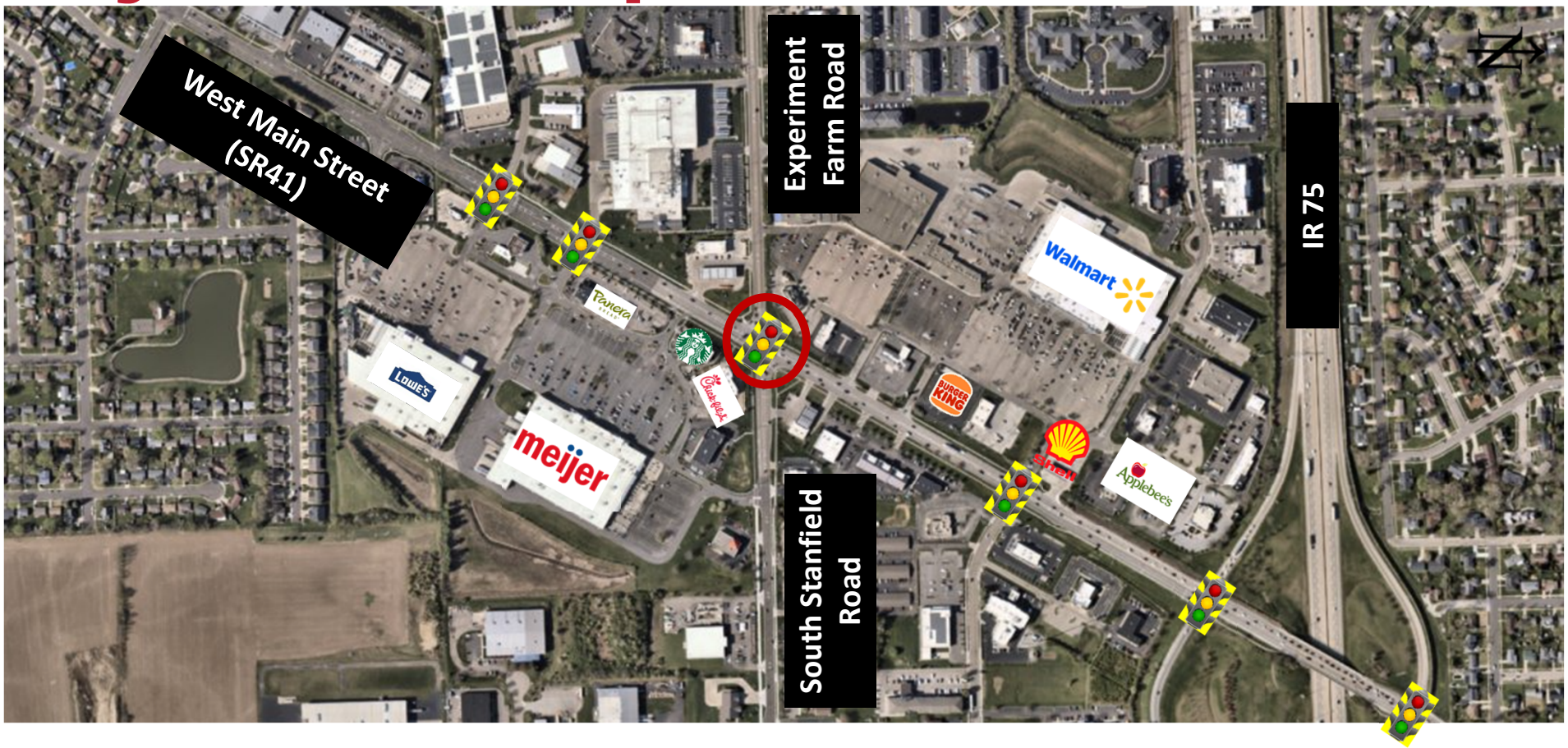
Public Meeting Presentation

Preferred Alternative presented for public comments

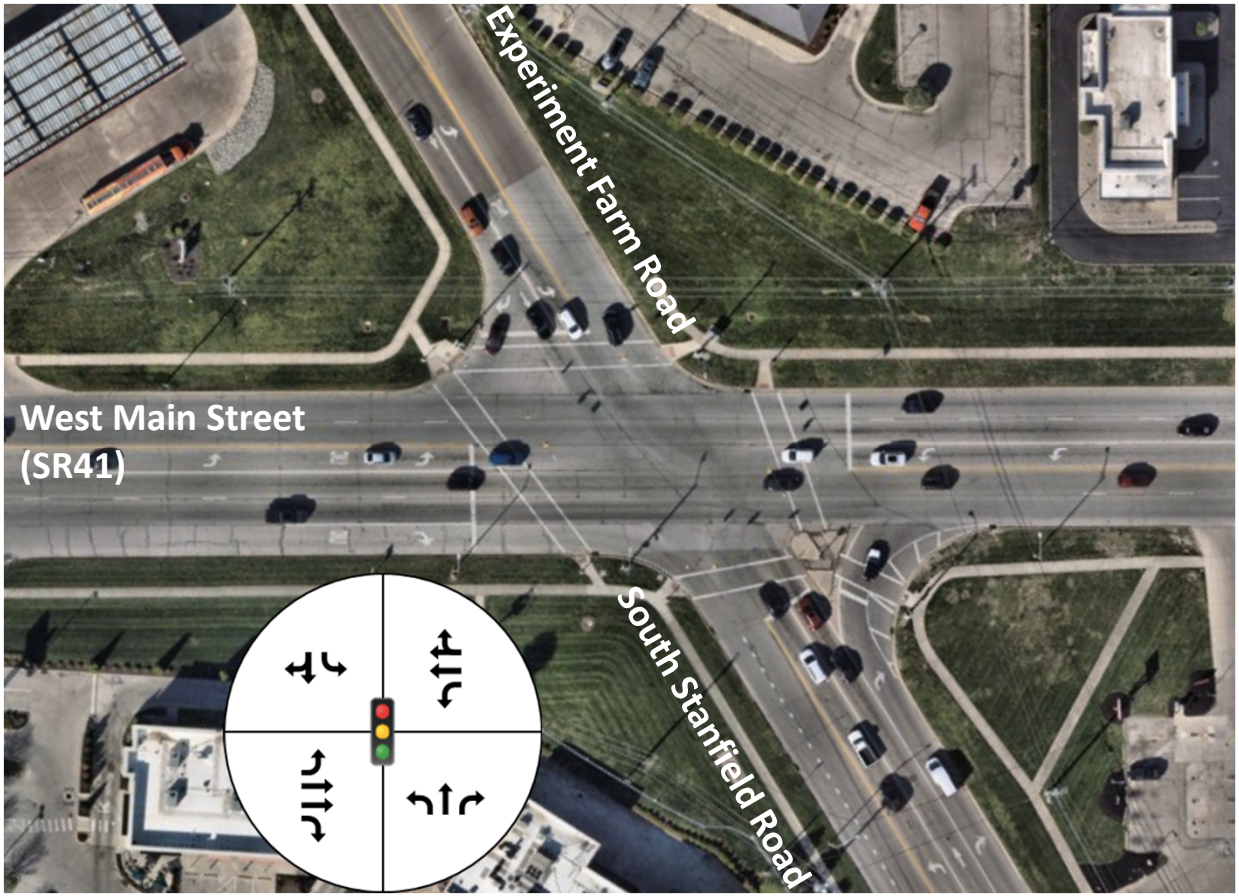
6 years of study & data collection before bringing this project to council

Studies confirmed: safety issues, crash patterns, and traffic volumes all justify intersection improvements at W Main St & Experiment Farm Rd

Project Area Map



Existing Conditions



Average Daily Traffic

- W Main Street: 23,390 vehicles per day
- Experiment Farm Road: 7,310 vehicles per day
- South Stanfield Road: 9,810 vehicles per day

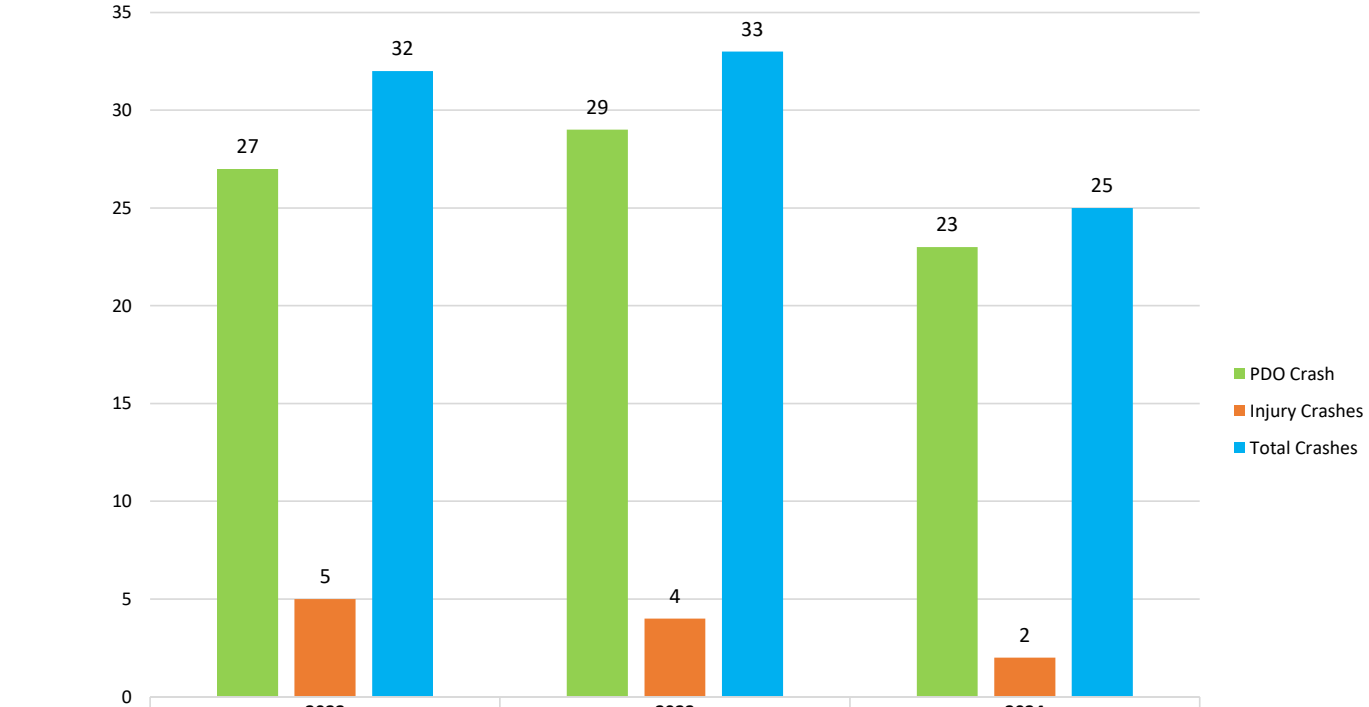
Speed Limit

- W Main Street: 40 mph
- Experiment Farm Road: 35 mph
- South Stanfield Road: 35 mph

Traffic Control

- Signalized Intersection (Span wire) without backplates

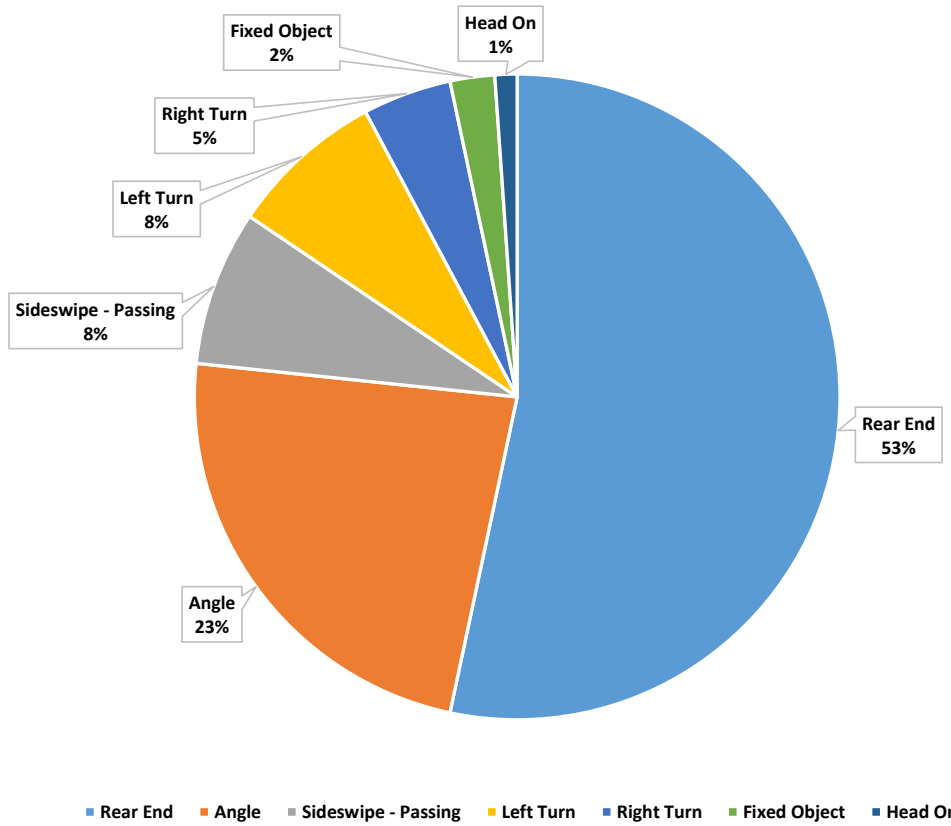
Existing Crash Data



	2022	2023	2024
PDO Crash	27	29	23
Injury Crashes	5	4	2
Total Crashes	32	33	25

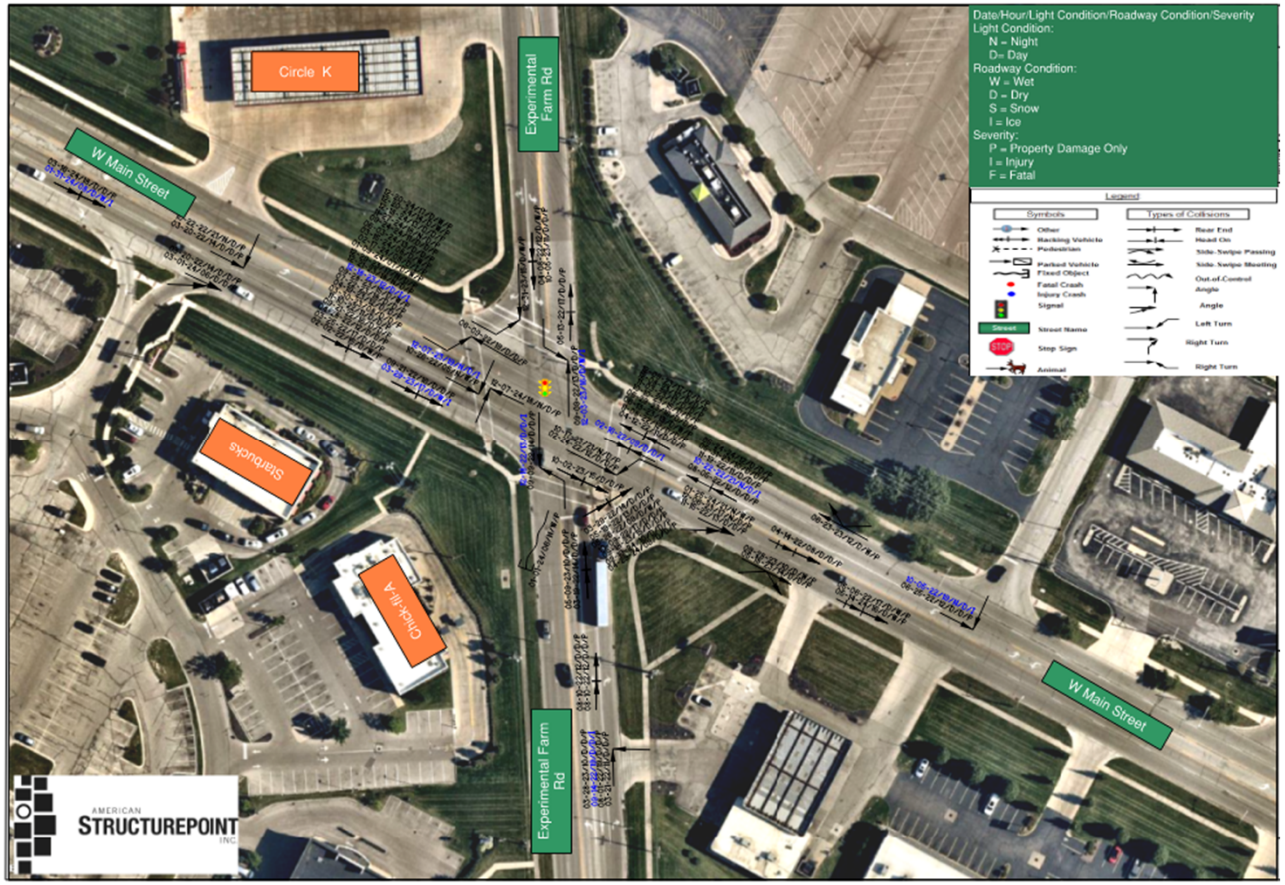
Existing crashes in the project area broken down by Severity per Year

Existing Crash Data



Existing crashes in the project area broken down by Type

Existing Collision Diagram





Ohio statewide

22%

of all crashes are rear-end

Troy citywide

27%

of all crashes are rear-end

W Main St and Experiment Farm Road Intersection

53%

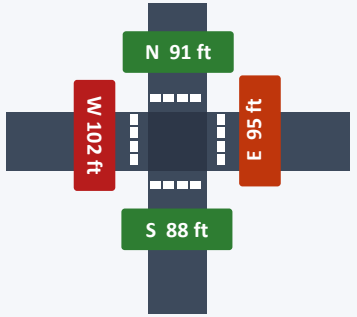
of all crashes are rear-end

2.4x the statewide average

Existing Conditions – Pedestrian Crossing



Crossing lengths by leg



N	E	W	S
91 ft	95 ft	102 ft	88 ft

Exposure to Pedestrian per leg

25 – 35 seconds

Avg. walking speed: 3 – 4 ft / sec

Congestion

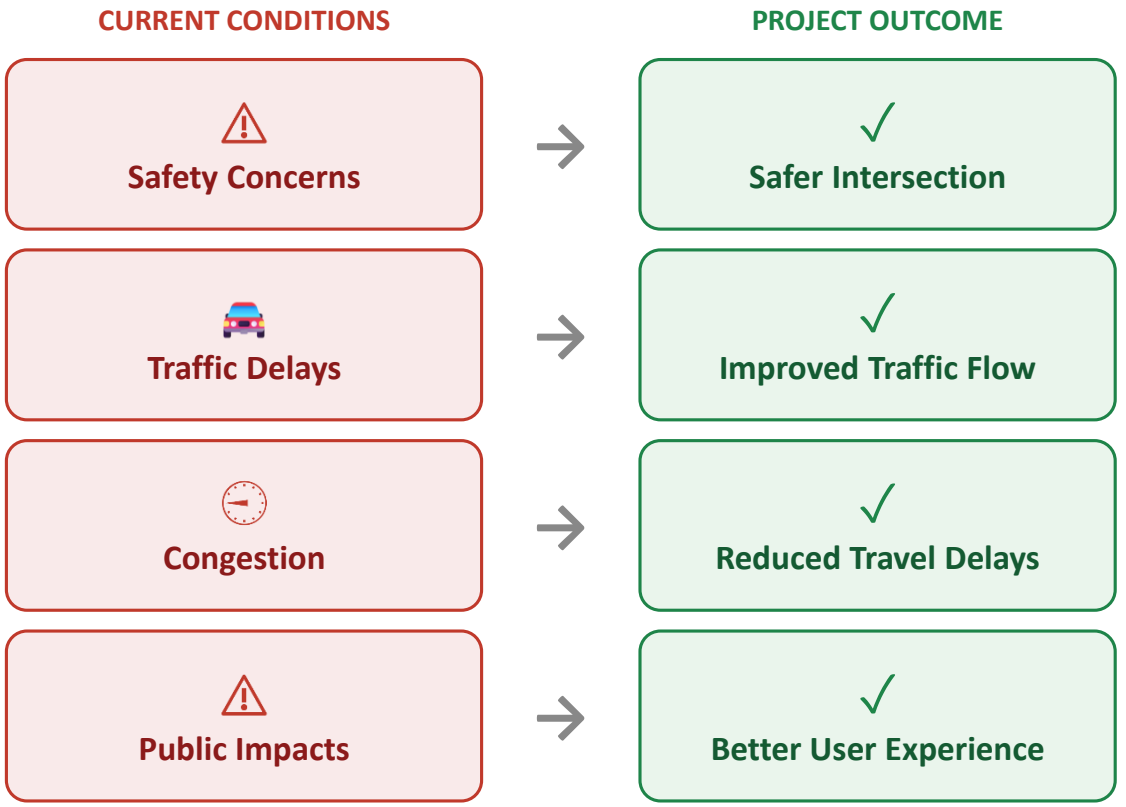
PROJECT BENEFIT: Travel time through the corridor drops from 106 to 81 seconds — saving 25 seconds per trip during peak hours



Purpose and Need

Purpose Statement:

The purpose of this project is to improve safety and reduce congestion for the traveling public at the intersection of West Main Street and Experiment Farm Road/South Stanfield Road in Troy, Miami County, Ohio.

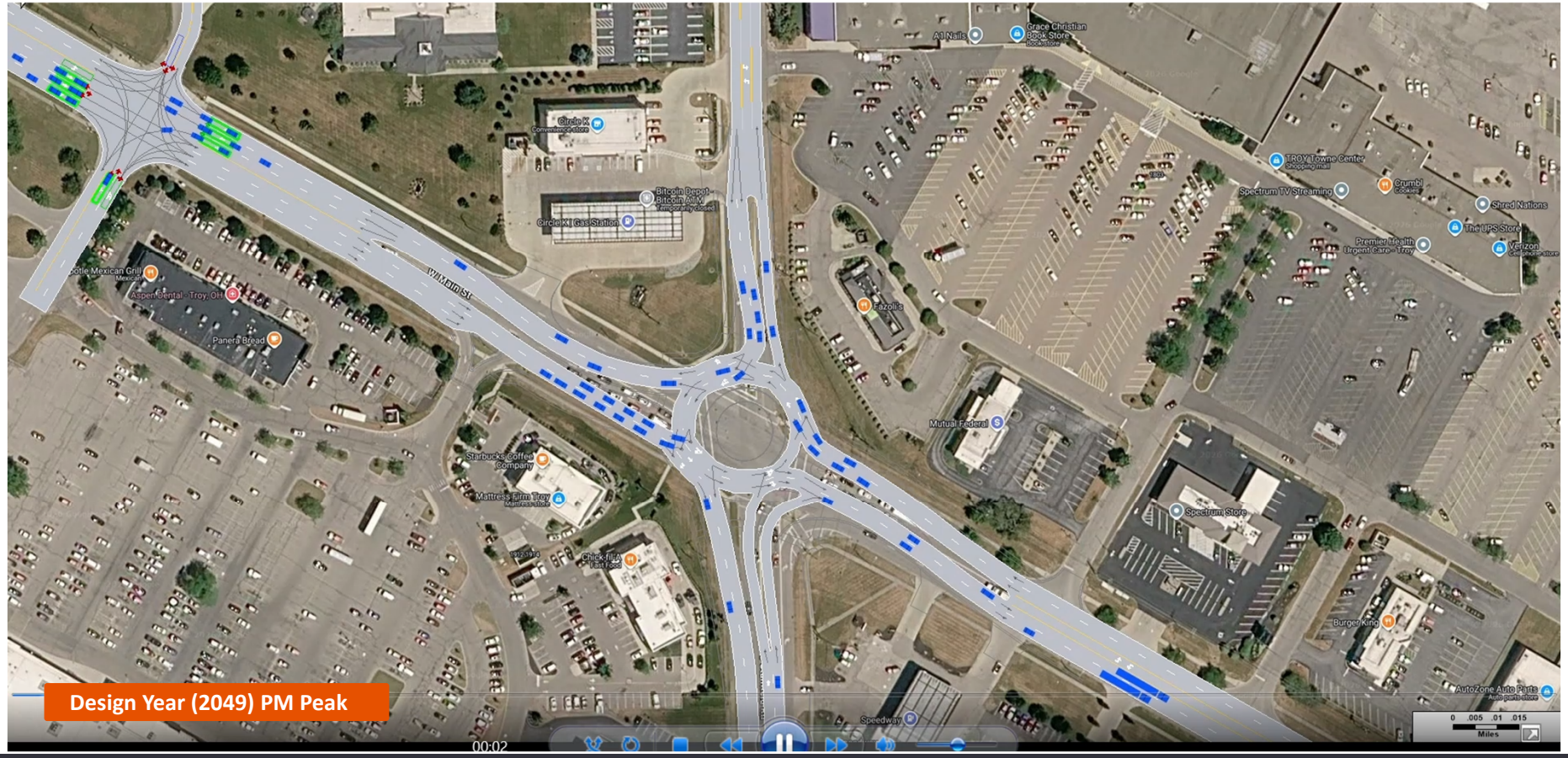


Proposed Capacity Improvements

Vehicle Delay by Approach — PM Peak Hour (Design Year 2049)					Design Year (2049) PM Peak	
Intersection	Approach	No Build	Improved Signal	Roundabout	Delay Reduction vs No Build (PM)	
		Delay (s/veh)	Delay (s/veh)	Delay (s/veh)	Improved Signal	Roundabout
W Main Street & Experiment Farm Rd / Stanfield Road	EB Approach	18.0 s	24.4 s	36.1 s		
	WB Approach	17.6 s	17.6 s	19.4 s		
	NB Approach	67.4 s	42.5 s	26.5 s	-37%	-61%
	SB Approach	35.6 s	28.1 s	28.2 s	-21%	-21%
	Intersection	28.2 s	25.0 s	27.0 s	-11%	-4%

Roundabout: NB Approach delay reduced by 61%
from 67.4 s (No Build) to 26.5 s (Roundabout) — PM Peak

Roundabout Simulation



Proposed Safety Improvements

Expected Crash Reduction by Severity — Crashes Per Year							
Severity	Description	Typical Meaning	Crashes Per Year			Expected Crash Reduction vs Existing Signal	
			Existing Signal	Improved Signal	Roundabout	Improved Signal	Roundabout
K + A	Fatal / Serious Injury	Fatal crash or severe injury requiring hospitalization	0.1871	0.1356	0.0631	-27.50%	**-66.30%**
B	Suspected Minor Injury	Visible injuries such as bruises, cuts, or minor sprains	1.0406	0.7449	0.5302	-28.40%	**-49.10%**
C	Possible Injury	Complaint of pain or discomfort with no visible injury	1.7021	1.1783	0.6567	-30.80%	**-61.40%**
O	Property Damage Only	No injuries; vehicle or property damage only	20.1376	5.3302	5.9886	-73.50%	**-70.30%**
		Total	**23.0574**	**7.389**	**7.2386**	**-67.90%**	**-68.60%**

68.6% fewer total crashes
Roundabout vs. Existing Signal (all severity levels)

66.3% reduction in fatal/serious injury crashes (K+A severity)



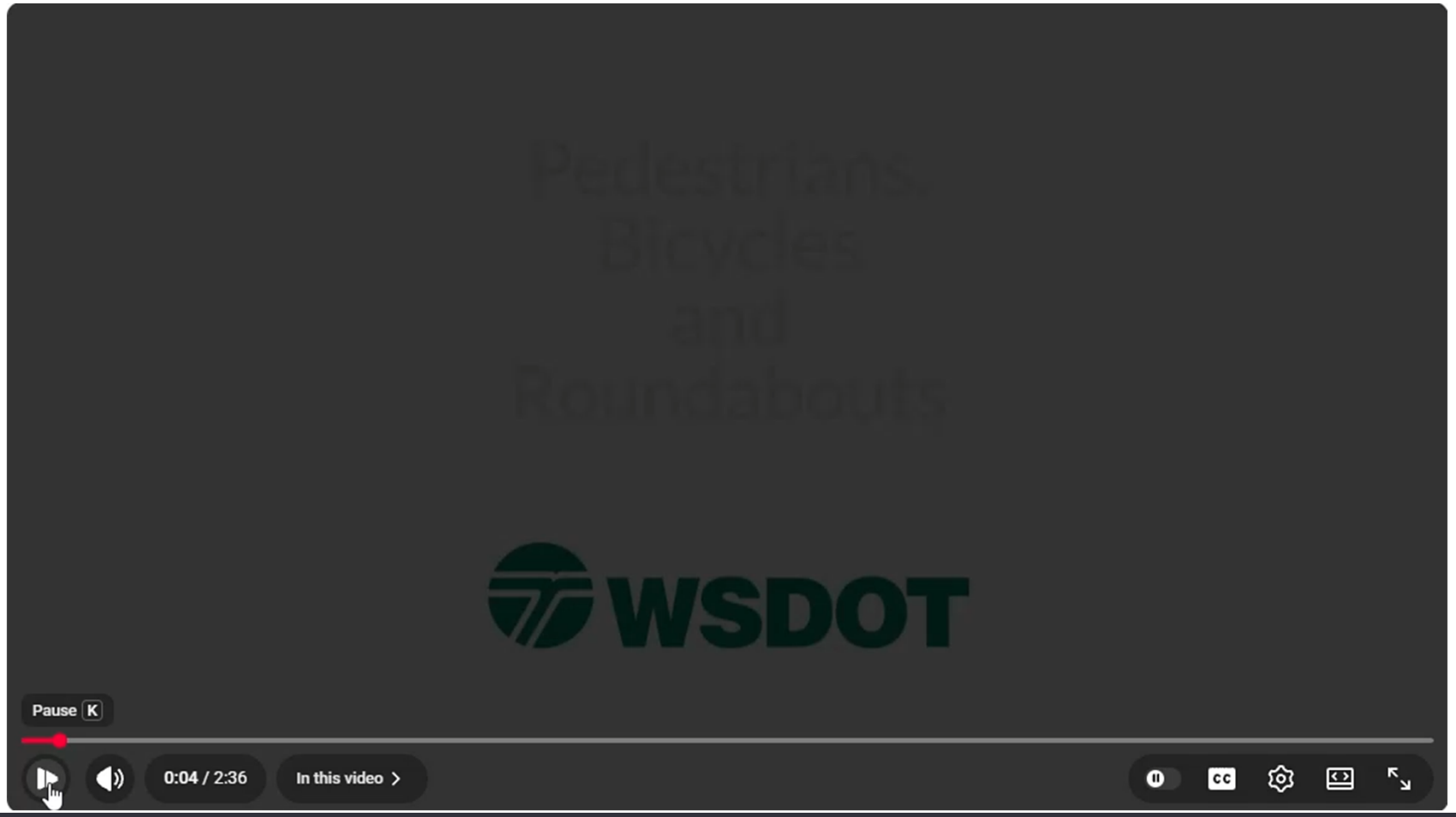
Proposed Improvements:

- **Shorter pedestrian crossings lengths**
- **Reduction of turn lanes**
- **Access management median islands**
- **Advance signage for lane assignments**
- **Pedestrian crossing enhancements**

Trucks and Roundabouts



Pedestrians / Bicycles at Roundabouts



Project Costs

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ROUNDABOUT ALTERNATIVE
PRELIMINARY COST ESTIMATE

DESCRIPTION	TOTAL $
ROADWAY SUBTOTAL	$400,526
EROSION CONTROL SUBTOTAL	$89,465
DRAINAGE SUBTOTAL	$998,644
PAVEMENT SUBTOTAL	$874,182
LIGHTING SUBTOTAL	$180,000
TRAFFIC CONTROL SUBTOTAL	$62,237
LANDSCAPING SUBTOTAL	$30,000
Subtotal	$2,635,054
20% Contingency	$527,011
24.9% Inflation (estimated construction in 2028)	$787,354
Total Construction Cost	$3,949,420
INCIDENTAL SUBTOTAL	$348,692
TOTAL PROJECT COST	$4,298,111

Recommendation

✓ RECOMMENDED ALTERNATIVE

Traditional Roundabout

68.6%
fewer total crashes

66.3%
fewer fatal/serious injuries

61%
less NB approach delay (PM)

Safety

- Proven countermeasure — reduces crash severity
- Mitigates historic rear-end & angle crash patterns
- 68.6% fewer crashes vs existing signal

Traffic Flow

- Roundabout geometry naturally slows vehicles
- Balances traffic flow across all four legs
- 61% reduction in NB approach delay (PM Peak)

Pedestrians

- Shorter crossing distances on all legs
- Less exposure time to moving traffic
- Eliminates right-on-red conflicts

Maintenance

- Lower long-term costs vs signal equipment
- No signal hardware or electrical dependency
- Operates fully during power outages

Access the project website by scanning the QR code



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TROY OHIO