

Intersection Modifications to US 377 & SH 22

Public Meeting
April 23, 2024



1

INTRODUCTIONS

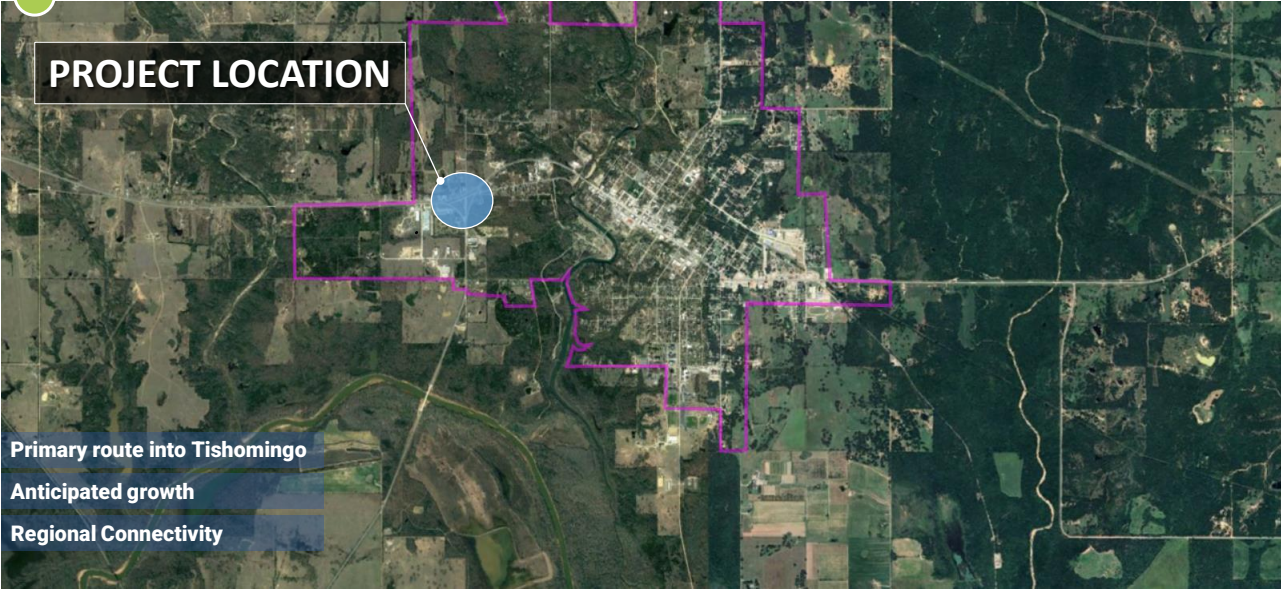


2

BACKGROUND

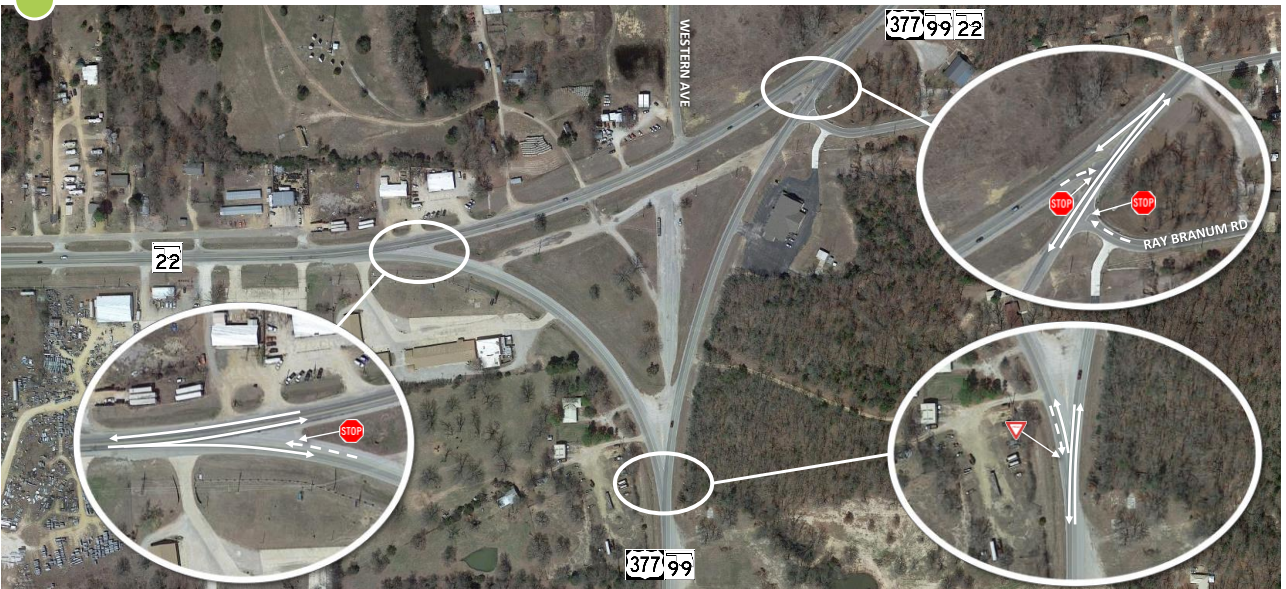


PROJECT LOCATION



3

BACKGROUND



4

PURPOSE & NEED



Address Geometric Concerns

- Angled Intersects
- Reduce Intersections

Improve Operations

- All movements

Facilitate Traffic Growth

- Population Increase
- Adjacent Development

Enhance Safety

- Vehicular
- Bike/Pedestrian (Future)



PURPOSE AND NEED STATEMENT

To improve safety and operational efficiency of the intersection.

5

ANALYSIS



Operational Analysis

- 2046 Projected Volumes
- Traffic Patterns

Safety

- Conflict Points
- Crash Reduction Factors

R/W & Environmental

- Proposed R/W Footprint
- Environmental Studies

Drainage

- Drainage Patterns
- Increased Runoff

Utility Impacts

- Infrastructure Improvements

Construction Costs



6

ALTERNATIVE 1 – FOUR-LEGGED INTERSECTION



CONTROL

Unsignalized (All-Way Stop)

CONFIGURATION

Northbound - US-377

- Adjust alignment
- Add left turn lane

Westbound - US-377

- Add left turn lane
- Add right turn lane

Southbound - Western Ave

- Add left turn lane

Eastbound - SH-22

- Add left turn lane
- Add right turn lane

7

ALTERNATIVE 2 – T-INTERSECTION



CONTROL

Unsignalized (All Way Stop)

CONFIGURATION

Northbound - US-377

- Adjust alignment
- Add left turn lane

Southbound – US-377

- Adjust alignment
- Add right turn lane

Eastbound - SH-22

- Adjust alignment
- Add left turn lane

8

ALTERNATIVE 3 – ROUNDABOUT INTERSECTION



CONTROL

Single lane Roundabout
(Yield Control)

CONFIGURATION

Northbound - US-377

- Adjust alignment

Southbound – US-377

- Adjust alignment

Eastbound - SH-22

- Adjust alignment

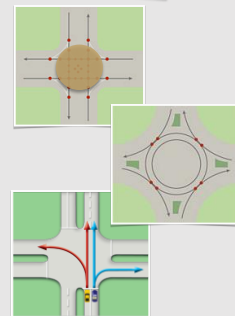
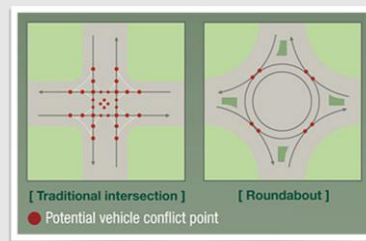
9

WHY CONSIDER ROUNDABOUTS?



Benefits of Roundabouts

- Safety
 - Fewer Conflict Points
 - Crash Severity Reduction
 - Limited Choice for error
 - Fewer driver/pedestrian conflicts
- Operational Performance
 - Reduced Off-peak delay
 - Increased Capacity

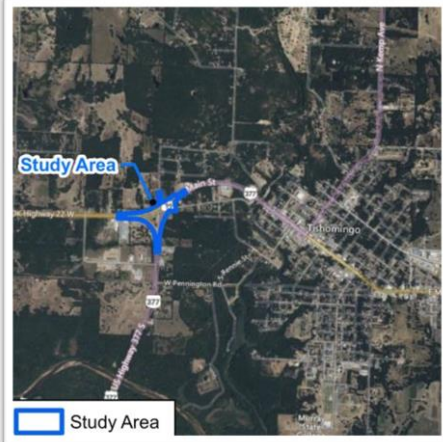


10

ENVIRONMENTAL STUDIES



Environmental studies of the project area are currently being conducted to identify potential environmental impacts resulting from the proposed project.



The environmental studies include the following subjects:

- Streams and Wetlands
- Protected Biological Species
- Hazardous Materials
- Cultural Resources

11

ENVIRONMENTAL STUDIES



Streams and Wetlands

1 unnamed stream and 1 emergent wetland were identified within the study area.



Biological Study

Federally-listed threatened and endangered species considered for study area:

- Piping plover
- Rufa red knot
- Whooping crane
- Tricolored bat
- Alligator snapping turtle
- American Burying Beetle

Minimal habitat for protected species within study area.

12

ENVIRONMENTAL STUDIES



Hazardous Materials

- No evidence of hazardous materials were identified by the historic records review.
- No site or facility within study area is recognized as an environmental risk.

Cultural Resources

- Professional archeologists performed a cultural resources study.
- No cultural resources were identified within the study area.



No environmental impacts expected to occur.

13

ANALYSIS



Operational Analysis

- 2046 Projected Volumes
- Traffic Patterns

Safety

- Conflict Points
- Crash Reduction Factors

R/W & Environmental

- Proposed R/W Footprint
- Environmental Studies

Drainage

- Drainage Patterns
- Increased Runoff

Utility Impacts

- Infrastructure Improvements

Construction Costs



14

NON-DETERMINANT FACTORS



Alt.	Traffic Considerations				Land Use and Environmental Impact Consideration		Drainage Impacts	Utility Impacts	Estimated Construction Cost
	Total Delay		Conflict Points	Crash Reduction Factors	Environmental	Right of Way			
	AM	PM							
No Build									
Alt. 1									
Alt. 2									
Alt. 3									

15

ANALYSIS MATRIX



Alt.	Traffic Considerations				Total Score
	Total Delay		Conflict Points for Crashes	Crash Reduction Factors	
	AM	PM			
No Build					
Alt. 1					
Alt. 2					
Alt. 3					

16

ANALYSIS RESULTS



Alt.	Traffic Considerations				Total Score
	Total Delay		Conflict Points for Crashes	Crash Reduction Factors	
	AM	PM			
No Build	2	3	2	3	10
Alt. 1	2	3	3	2	10
Alt. 2	2	3	2	2	9
Alt. 3	1	1	1	1	4

Blue=3
Yellow=2
Green=1



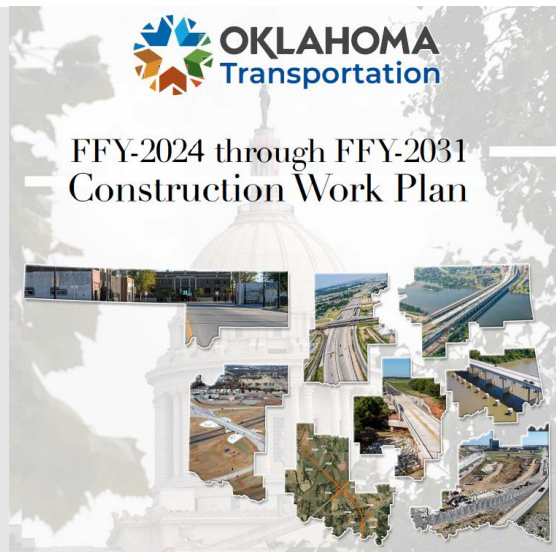
17

SCHEDULE



8-year Plan

- Right-of-Way – 2024
- Utilities – 2025
- Construction – 2026



www.ok.gov/odot/Programs_and_Projects/8_Year_Construction_Work_Plan/index.html

18

NEXT STEPS



RECEIVE COMMENTS FROM PUBLIC



DETERMINE FINAL CONFIGURATION AND NOTIFY PUBLIC



FINAL DESIGN & CONSTRUCTION

19

SUBMIT COMMENTS

Comments Due 5 / 7 / 2024



Online

"Submit A Comment" Tab



Email

environment@odot.org



Phone

405-325-3269



Mail

Environmental Programs Division
Oklahoma Department of Transportation
200 N.E. 21st St.
Oklahoma City, OK 73105-3204

20