

# SR 46 AND WARREN-SHARON RD INTERSECTION IMPROVEMENT (TRU-46-7.81, PID 109520)



OHIO DEPARTMENT OF  
TRANSPORTATION



# SR 46 AND WARREN-SHARON RD INTERSECTION IMPROVEMENT OPEN HOUSE

(TRU-46-7.81, PID 109520)

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2 | TRU-46-7.81, PID 109520 Public Meeting



The Ohio Department of Transportation welcomes you to our virtual open house for the proposed improvements to the intersection of State Route 46 and Warren-Sharon Road in Trumbull County.

Whether you are a nearby resident, business owner, employee or local driver, we want to give you the latest information on this upcoming project, hear your comments and concerns, and answer any questions you may have.

## PUBLIC INPUT IS CRITICAL TO ODOT'S DECISION-MAKING

- Project Development Process
- Purpose: share project information, gather feedback
- Public outreach before the design is finalized

[www.publicinput.com/TRU109520](http://www.publicinput.com/TRU109520)

“Submit your Feedback” tab



Your comments are very important to ODOT's decision-making, and this opportunity for public input is part of ODOT's Project Development Process. The purpose of this meeting is to share project information and receive feedback before the design is finalized.

After reviewing the presentation materials, you will have an opportunity to provide your comments via the “Submit Your Feedback & Next Steps” tab on the project's public input website. We'll also cover additional ways you can provide your comments on the project at the end of the presentation.

## THIS PRESENTATION WILL COVER...

- Project Overview
- Alternatives Under Consideration
  - Recommended Preferred Alternative
- Environmental Studies/Process
- How to Comment
- Next Steps



During this presentation, we will discuss an overview of the project, the alternatives and countermeasures that were developed and considered for the project (including the recommended preferred alternative), the ongoing environmental studies, how to provide your comments, and lastly, next steps.

# PROJECT OVERVIEW

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5 | TRU-46-7.81, PID 109520 Public Meeting



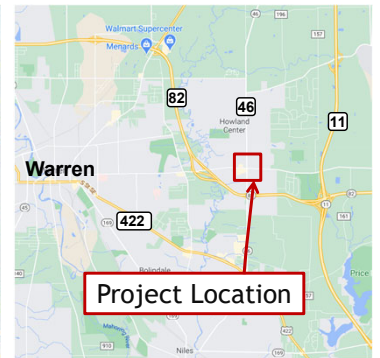
## PROJECT OVERVIEW

- Existing Conditions
- Project Background
- Purpose and Need
- Maintenance of Traffic
- Funding



This overview will cover the existing conditions at the intersection, details about the projects background, the purpose and need for the project, how traffic will be maintained during construction, and project funding.

## EXISTING CONDITIONS



The project is located at the intersection of State Route 46 and Warren-Sharon Road in Trumbull County. As you can see in the smaller map on the right, the project is located to the East of the City of Warren.

## EXISTING CONDITIONS



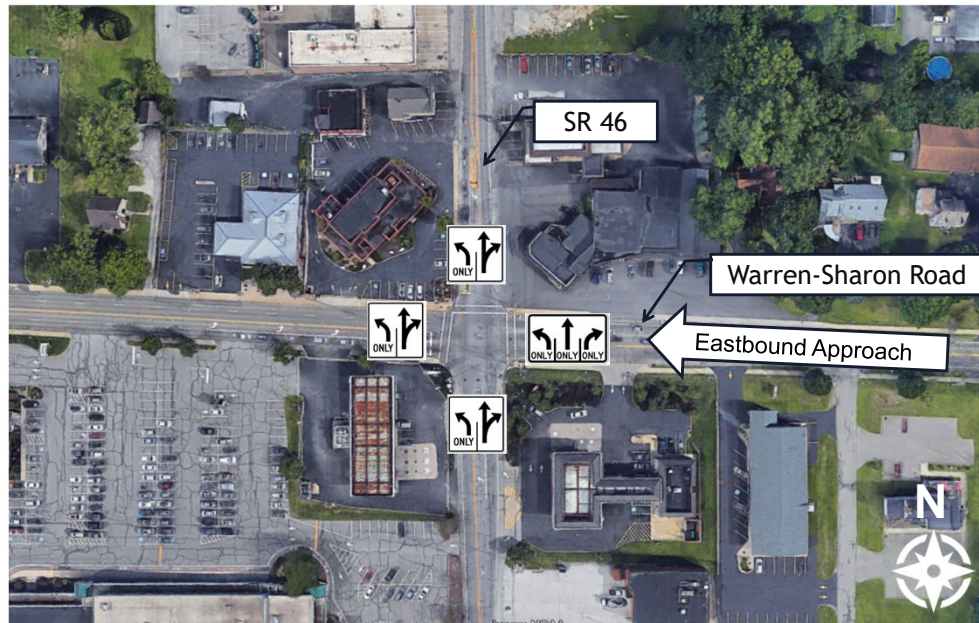
8

There is currently a traffic signal at the intersection. The lane widths approaching the intersection are different widths that vary between 10 and 12 feet wide. These varying widths result in lane offsets of up to two feet. A lane offset is when a lane does not line up with its receiving lane on the other side of the intersection.

We will get into more detail later about how this can impact safety at the intersection.



## EXISTING CONDITIONS



9

No matter which direction you travel into the intersection, each leg has one thru or right turn lane and a left turn only lane, except for the eastbound approach. Trumbull County restriped the eastbound approach in 2017 to a left turn only lane, thru lane, right turn only lane.

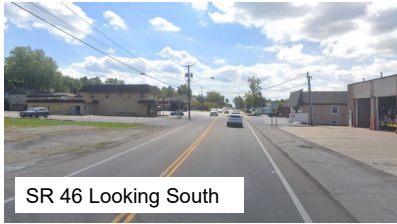
## EXISTING CONDITIONS



10

The speed limit on State Route 46 is 40 miles per hour. The speed limit on Warren-Sharon Road is 35 miles per hour.

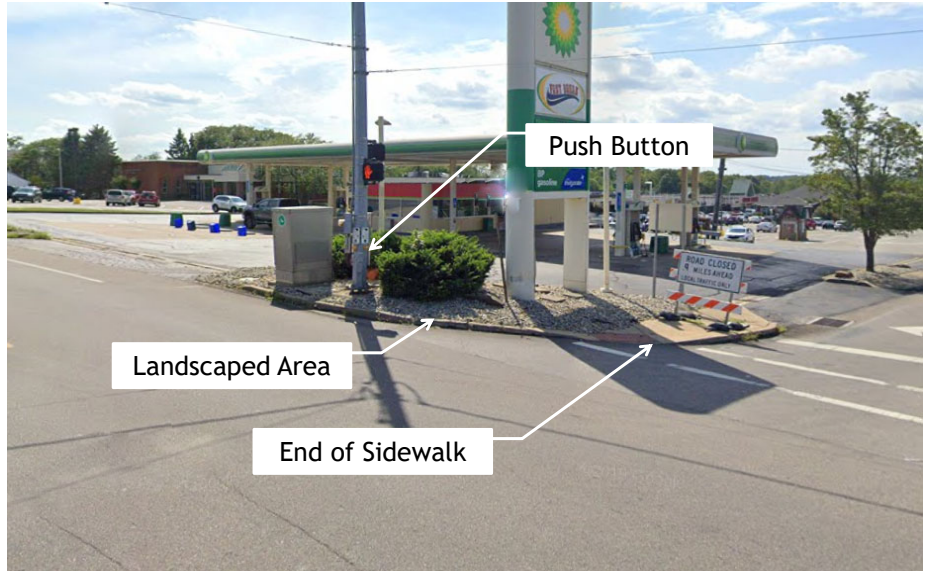
## EXISTING CONDITIONS



SR 46 Looking South



SR 46 Looking North



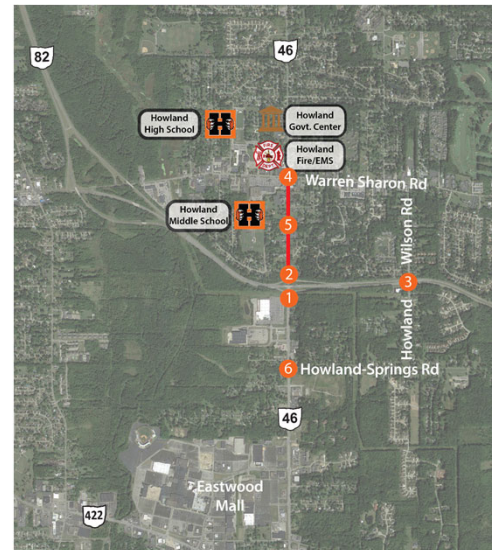
11 | TRU-46-7.81, PID 109520 Public Meeting



There is sidewalk next to the roadway on Warren-Sharon Road, but it is not connected in all areas and has frequent gaps. There is no well-defined sidewalk on State Route 46, as shown in the images on the left. The marked crosswalks at the intersection have pedestrian signal lights and pushbuttons, however pedestrian accommodations at the intersection do not meet Americans with Disabilities Act (or ADA) regulations. Several pedestrian pushbuttons are located within landscaped areas of corner businesses, beyond the reach of the paved sidewalk. This is shown in the image on the right. As you can see, the sidewalk does not extend to where the pedestrian push button is located, making it difficult for those in wheelchairs or with other physical disabilities to access the pedestrian signal button.

# PROJECT BACKGROUND

- Intersection previously studied
  - 2005, TRU-422 Corridor Study (PID 21310)
  - 2019, TRU-46-7.28 Safety Study (PID 103908) (Right)
- Consistently ranked as a safety priority intersection
  - 2015 - Urban Non-Fwy #108
  - 2015 - Urban Int #349
  - 2016 - Urban Non-Fwy #103
  - 2016 - Urban Int #374
  - 2016 - Eastgate Int #5



12 | TRU-46-7.81, PID 109520 Public Meeting

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The intersection was previously studied in 2005 as part of a larger study of the State Route 422 corridor. The intersection was also studied in the Trumbull County State Route 46 Safety Study. The image on the right is included in the study and identified the State Route 46 and Warren-Sharon Road intersection (#4) as a priority safety concern.

Each year, the Ohio Department of Transportation prioritizes roadway locations for safety study or review. Recommendations from the study are used to make safety improvements to the roadway. These locations are grouped by type of roadway. As you can see, the intersection of State Route 46 and Warren-Sharon Road has been consistently ranked as a safety priority intersection.



# PURPOSE AND NEED

## Purpose

- Improve safety

## Crash Data

- 90 crashes from 2012 to 2016
- 23% resulted in an injury
- Two incapacitating injuries

## Crash Types

- Rear end, sideswipe-passing, and angle crashes
- Peaked between 11am and 3pm

Traffic Crash Year	Number	%
2012	21	23.3%
2013	14	15.6%
2014	25	27.8%
2015	15	16.7%
2016	15	16.7%
Grand Total	90	100.0%

Crash Severity	Number	%
Injury Crash	21	23.3%
Property Damage Only	69	76.7%
Grand Total	90	100.0%

Type of Crash	Number	%
Rear End	51	56.7%
Sideswipe - Passing	14	15.6%
Angle	12	13.3%
Left Turn	9	10.0%
Backing	2	2.2%
Fixed Object	1	1.1%
Overturning	1	1.1%
Grand Total	90	100.0%



Because of this, the primary purpose of the project is to improve safety. A total of 90 crashes occurred at the State Route 46 and Warren-Sharon Road intersection from 2012 to 2016. Of the 90 crashes observed, 23% resulted in an injury, with two incapacitating injuries occurring over those 4 years.

The predominant crash types were rear end, sideswipe-passing, and angle crashes. The crash pattern peaked during the midday period, between the hours of 11am and 3pm, with 42% of observed crashes at this intersection occurring during that timeframe.

# PURPOSE AND NEED

## Crash Conditions

- 81% on dry pavements
- 90% in clear or cloudy conditions
- Weather does not appear to be a factor in the crash pattern
- 93% in daylight or lighted conditions

## Primary Contributing Crash Factors

- Following too closely
- Failure to yield
- Turn lane lengths and lane alignment may also contribute



Figure 9 - Southbound Queueing on SR 46  
Approaching Warren-Sharon Road

14 | TRU-46-7.81, PID 109520 Public Meeting

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81% of all crashes at the intersection occurred on dry pavements, and 90% in clear or cloudy conditions. Based on these findings, weather does not appear to be a factor in the crash pattern. Similarly, 93% of observed crashes occurred in daylight, or lighted conditions.

The primary contributing factor to crashes at this intersection was drivers following too closely, accounting for 58% of all crashes.

Failure to yield was the next most common contributing factor, accounting for 16% of all crashes at this location.

The lane widths at the intersection vary and some do not line up with their receiving lanes on the other side of the intersection, this may also contribute to the crashes, specifically for sideswipe-passing crashes.

## MAINTENANCE OF TRAFFIC

- A minimum of one lane of traffic in each direction will be open during construction
- Access to all commercial and residential properties will continue
- Pedestrian traffic will also be maintained by existing sidewalks and detour routes



A minimum of one lane of traffic in each direction will remain open throughout construction.

Access to all commercial and residential properties will also be maintained.

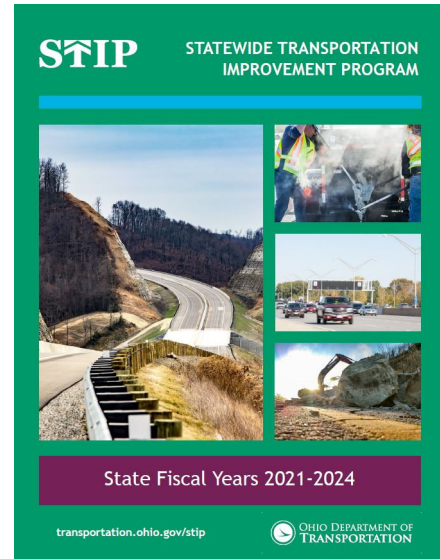
Pedestrian traffic will be maintained by utilizing existing sidewalks and small detour routes.

# PROJECT FUNDING

Cost: \$3.7 million

Funding from:

- Highway Safety Improvement Program
- State/ODOT



The project is expected to cost about \$3.7 million dollars. The project funding comes from both the Highway Safety Improvement Program and the Ohio Department of Transportation.

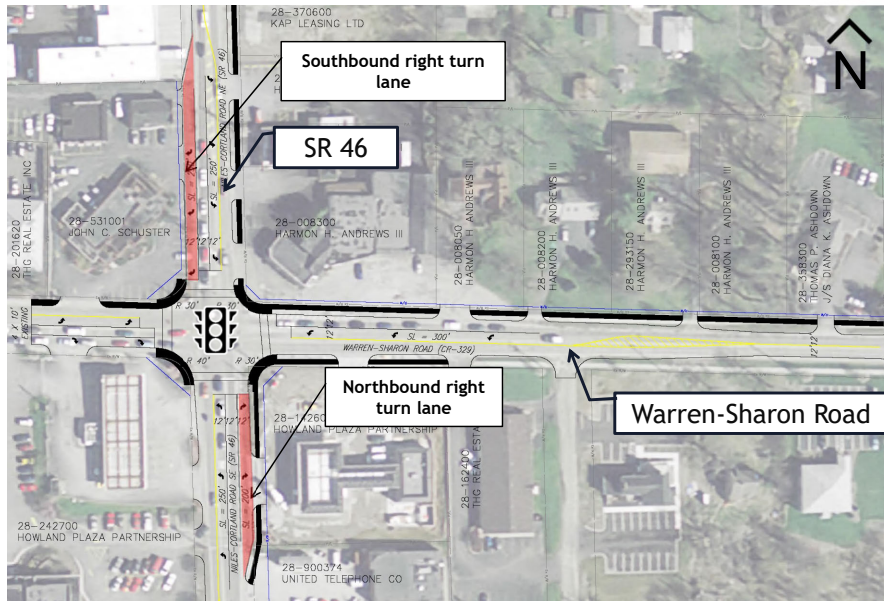


# ALTERNATIVES



Now that we've discussed the existing conditions, background, and purpose and need for the project, let's talk about the various alternatives that were developed to improve safety at the intersection.

# BUILD A



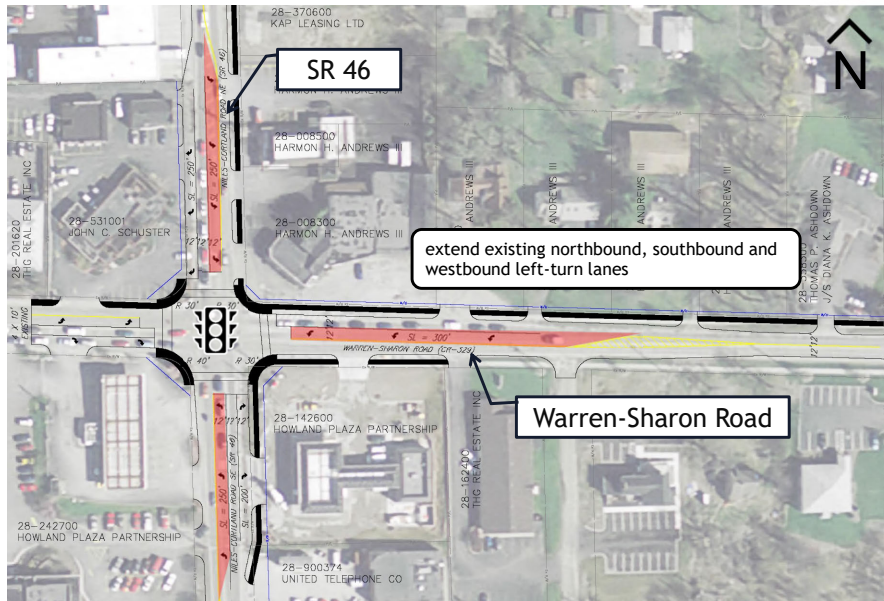
- Northbound and Southbound right turn lanes

18 | TRU-46-7.81, PID 109520 Public Meeting



The Build A Alternative proposes to construct northbound and southbound right-turn lanes on State Route 46, as shown highlighted in red on the image.

## BUILD A



- Extend the existing northbound, southbound and westbound left turn lanes

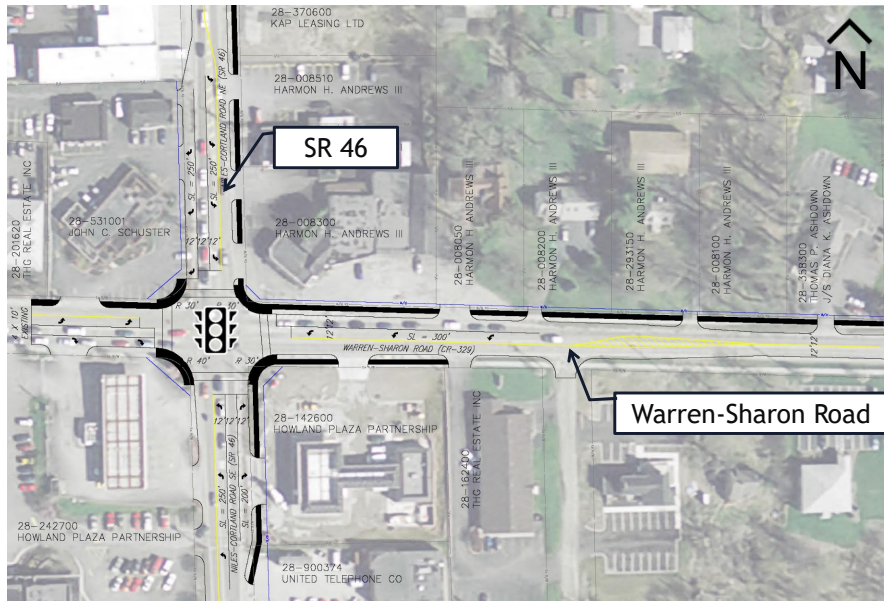
19 | TRU-46-7.81, PID 109520 Public Meeting

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Build A also proposes to also extend the existing northbound, southbound, and westbound left-turn lanes to be able to handle backups from the intersection during peak traffic times. This improvement is now shown highlighted in red on the image.

# BUILD A



- Reconstruction of the existing signal
- Addition of emergency vehicle preemption
- ADA accessible pedestrian accommodations (new sidewalk and curb ramps, accessible pushbuttons, and pedestrian signal heads with countdowns)

20 | TRU-46-7.81, PID 109520 Public Meeting



Additionally, the project proposes to reconstruct and upgrade the existing traffic signal. Improvements to the signal include the addition of emergency vehicle preemption. Signal preemption allows emergency vehicles to disrupt a normal traffic signal cycle in order to proceed through the intersection more quickly and under safer conditions. The preemption systems can extend the green light for an emergency vehicle's that is traveling through the intersection or replace the phases and timing for the whole cycle.

Improvements also include constructing wheelchair accessible sidewalks and curb ramps, pushbuttons that can be accessed from the sidewalk, and pedestrian walk signals with countdowns. The location of these sidewalk improvements are shown on the image in black.

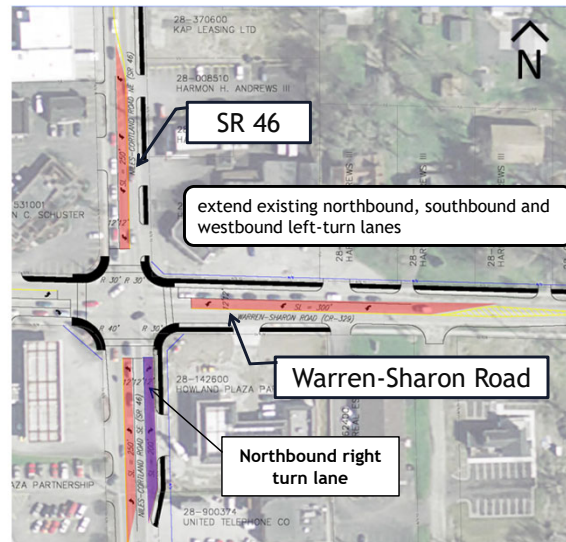
## BUILD B

### Lanes

- Adds a northbound right turn lane
- Extends existing left turn lanes to meet expected backup lengths

### Other Improvements

- Reconstruction of the existing signal
- Addition of emergency vehicle preemption
- ADA accessible pedestrian accommodations (new sidewalk and curb ramps, accessible pushbuttons, and pedestrian signal heads with countdowns)



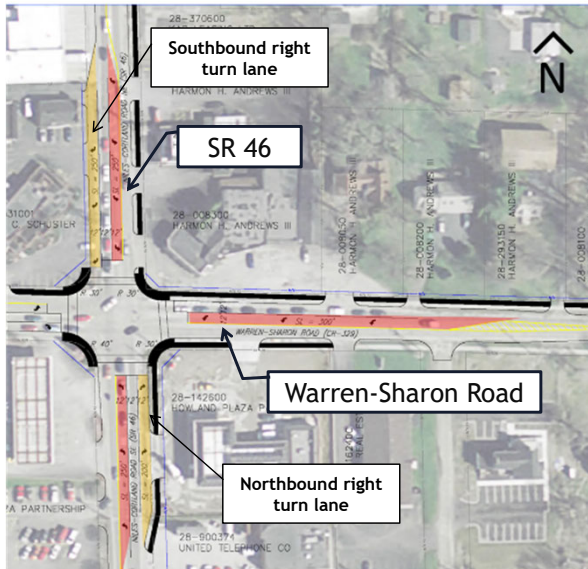
The Build B Alternative proposes to construct a northbound right-turn lane on State Route 46, as labeled on the image and highlighted in purple.

Build B proposes to extend the existing northbound, southbound, and westbound left-turn lanes. This improvement is shown highlighted in red.

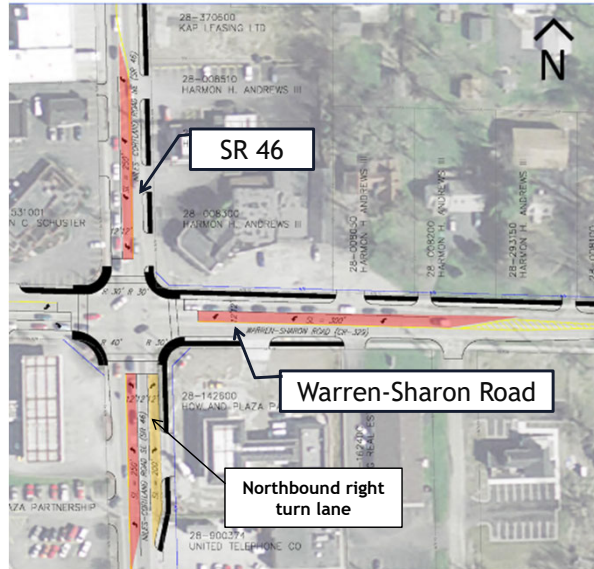
Build B also proposes to reconstruct and upgrade the existing traffic signal, with the same improvements as Build A. Build B also includes the same sidewalk and pedestrian infrastructure improvements as Build A.



## BUILD A & B COMPARISON



**Build A**



**Build B**

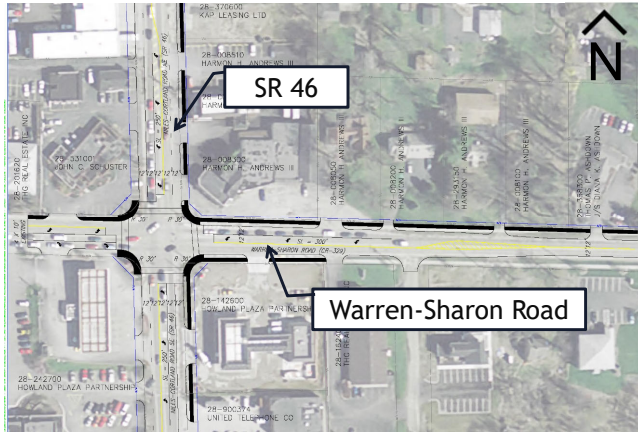
22 | TRU-46-7.81, PID 109520 Public Meeting

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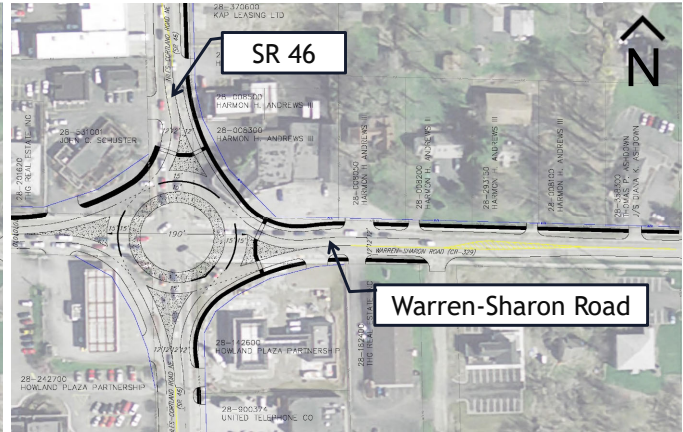


In summary, Build B includes the exact same improvements as Build A; however, Build B does not construct an additional southbound right turn lane on State Route 46. Build B only constructs a northbound State Route 46 right turn lane, as labeled on the image to the right and highlighted in yellow.

## BUILD C AND D



**Build C**



**Build D**

23 | TRU-46-7.81, PID 109520 Public Meeting

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Build C (shown on the left) would widen State Route 46 through the intersection to 5-lanes with shared thru-right turn lanes.

Build D (shown on the right) converts the existing 4 leg intersection into a roundabout

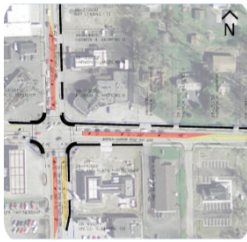
Both the roundabout and five-lane alternatives have large property, building, and utility impacts, with lower benefit to cost ratios than Build A and B. Existing grading and necessary downstream improvements also presented challenges and increased project footprints, leading both Build C and D to be eliminated from further consideration.

## RECOMMENDED PREFERRED ALTERNATIVE



### **Build A (Recommended Preferred Alternative)**

- Extends existing left turn lanes, adds northbound and southbound right turn lane
- ADA and other improvements
- Maximizes signal efficiency, greatest benefits for the cost, minimal impacts



### **Build B**

- Extends existing left turn lanes, adds northbound right turn lane
- ADA and other improvements
- Minimal impacts, not as effective as Build A



“Build A” is the recommended preferred alternative at the State Route 46 and Warren-Sharon Road intersection. Build A provides the greatest benefits for the cost, and generally minimizes overall impacts.

From a safety perspective, extended turn lanes will reduce the frequency of sideswipe-passing crashes caused by cars maneuvering around lines to reach blocked turn lanes. The extended turn lanes for the overlapping westbound left and northbound right movements will reduce backups, which will in turn reduce the frequency of rear end crashes observed at the intersection during the study period. Because of the turn lanes introduced in Build A, the alternative maximizes signal efficiency, which will also reduce congestion and backups, and help to improve safety by reducing crashes.



# ENVIRONMENTAL STUDIES/PROCESS

25 | TRU-46-7.81, PID 109520 Public Meeting



Environmental studies are ongoing for the project.

## ENVIRONMENTAL STUDIES

- Ecological Resources
- Regulated Materials
- Cultural and Historic Resources
- Community Impacts



As part of the project, studies will consider the project's impact on ecological resources (such as streams and wetlands), regulated materials sites, historic resources and community impacts such as traditionally underserved populations. At this time, the project is expected to have no impacts.

If you are aware of any concerns, please share your comments.

## RIGHT-OF-WAY

- Project will require
  - Permanent right-of-way
  - Minor temporary right-of way for construction
- Right of way acquisition:
- Summer 2021 - Winter 2022



The project will require permanent and minor temporary right of way. The temporary right of way will only be used during construction. Right of way acquisition will occur from summer of 2021 to winter of 2022.

# HOW TO COMMENT

28 | TRU-46-7.81, PID 109520 Public Meeting



Now that you have all of the project information, lets discuss how you can share your thoughts and feedback with us.

## HOW TO SUBMIT COMMENTS

- Using the “Submit your Feedback & Next Steps” tab on the website ([publicinput.com/TRU109520](https://publicinput.com/TRU109520))
- Call Sean: 330-786-2274
- Email Sean: [Sean.Carpenter@dot.ohio.gov](mailto:Sean.Carpenter@dot.ohio.gov)
- Mail comment form or letter to:  
Sean Carpenter  
ODOT- District 4  
2088 S. Arlington Road  
Akron, OH 44306



You can submit comments on our Public Input webpage on the “Submit your Feedback & Next Steps” tab. You can call Sean Carpenter at 330-786-2274 or email Sean at [Sean.Carpenter@dot.ohio.gov](mailto:Sean.Carpenter@dot.ohio.gov). You can also mail a comment form or letter to Sean Carpenter at ODOT District 4, 2088 S. Arlington Road, Akron, Ohio 44306. You can print or download a comment form under “Documents” located on the sidebar of the Public Input webpage.

# NEXT STEPS



## NEXT STEPS

### Review comments

- January 2021-March 2021

### Plans and Environmental Studies

- Winter 2020 - Summer 2024

### Right of Way Acquisition

- Summer 2021 - Winter 2022

### Construction

- Spring/Summer/Autumn 2025

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31 | TRU-46-7.81, PID 109520 Public Meeting



Next, ODOT will review and respond to your comments during February and March.

The design team will work on the plans and environmental studies until August of 2024. Right of way acquisition will occur from Summer of this year to Winter of 2022. If your property is needed for the project, an ODOT real estate representative will contact you personally.

Construction is scheduled to begin in the spring of 2025 and be complete in winter of 2025

THANK YOU

Thank you!

32 | TRU-46-7.81, PID 109520 Public Meeting



Thank you for joining our Virtual open house for the proposed improvements to the intersection of State Route 46 and Warren-Sharon Road. We look forward to hearing from you!