

I-40 East Section 1

Reno Avenue to Hudiburg Drive

and

I-40 over Sunnyslane Road

Public Meeting, August 22, 2024

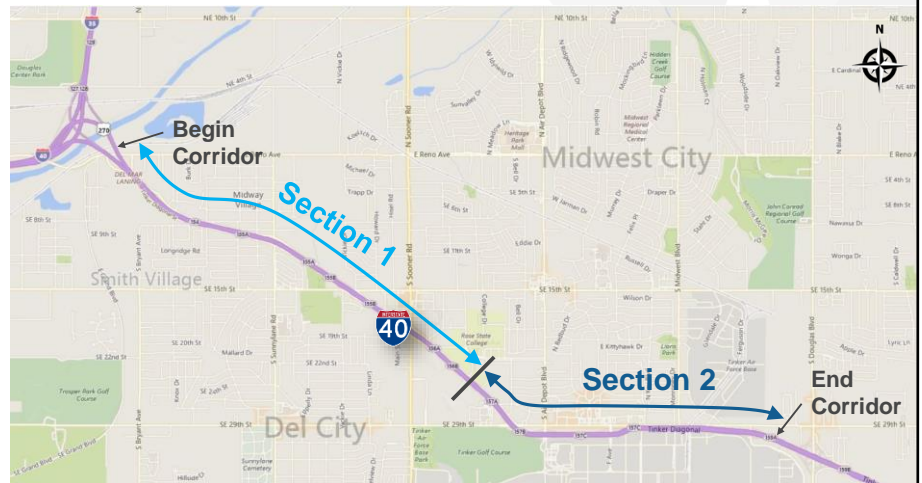


Welcome to the public meeting for the I-40 East Corridor Section 1 between Reno Avenue and Hudiburg Drive as well as the bridges on I-40 over Sunnyslane Road.

Corridor Study Sections

Section 1
Reno Ave.
to East of
Hudiburg Dr.
(Today's
Meeting)

Section 2
East of
Hudiburg Dr. to
Industrial Blvd.

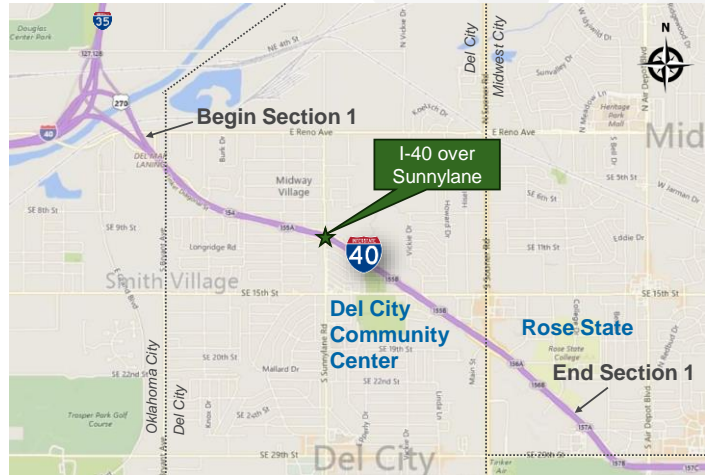


This map shows the I-40 East Corridor. I-35 is on the left side of the map and Douglas Boulevard on the right. North is pointing up on this map. The I-40 East Corridor consists of two sections. Section 1, which is the subject of today's meeting, is from Reno Avenue to Hudiburg Drive, shown in light blue on the map. Section 2 is from Hudiburg Drive to just west of Douglas Blvd. The study of Section 2 is still underway and information about that section will be presented at a future public meeting.

What is the Purpose of the Meeting?

To present the preferred alternative for Interstate 40 (I-40) from Reno Avenue to Hudiburg Drive and obtain public input.

Present the proposed design for I-40 over Sunnlyane Road bridge replacement



This map is zoomed in to show Section 1. The purpose of today's meeting is to present the preferred alternative for future improvements to I-40 Section 1 and to obtain your input. We will also discuss the proposed improvements to replace the bridges on I-40 over Sunnlyane Road, marked with a green star on the map.

What is the Purpose of the Study?

To Improve the Capacity, Operations and Safety of I-40 within the Study Limits.

This portion of I-40 is a significant freight corridor and serves Tinker AFB, one of the region's largest employers. There is also existing congestion which contributes to a high collision rate.

Need

- Traffic will continue to grow and congestion will worsen
- High number of collisions on I-40 and frontage roads
- Bridges are nearing the end of their useful life

Some of the Key Proposed Improvements

- Additional lanes on I-40
- Modifications to access - ramps and frontage roads
- New bridges

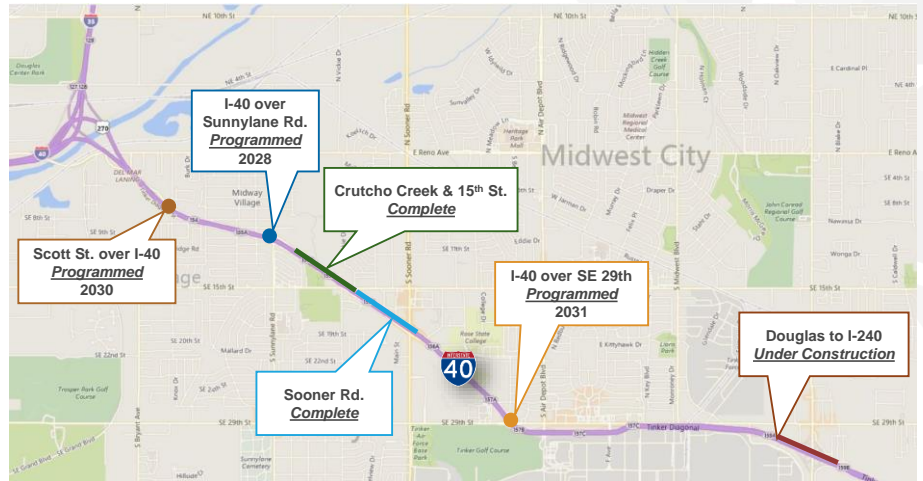


The purpose of the I-40 East corridor study is to improve the capacity, operations, and safety on I-40. This is a heavily traveled corridor by both passenger and freight vehicles and provides access to Tinker Air Force Base which is one of the region's largest employers. The corridor currently experiences congestion and has a high collision rate. Traffic is going to continue to grow into the future and congestion and collisions are expected to increase without improvements. Furthermore, many of the bridges in the corridor are nearing the end of their useful lives. This is one reason you have seen recent projects to replace some of the bridges in this corridor. Some of the key improvements we studied include additional lanes on I-40, modifications to the number of access points on I-40, changes to the frontage roads, and new bridges.

Construction Projects

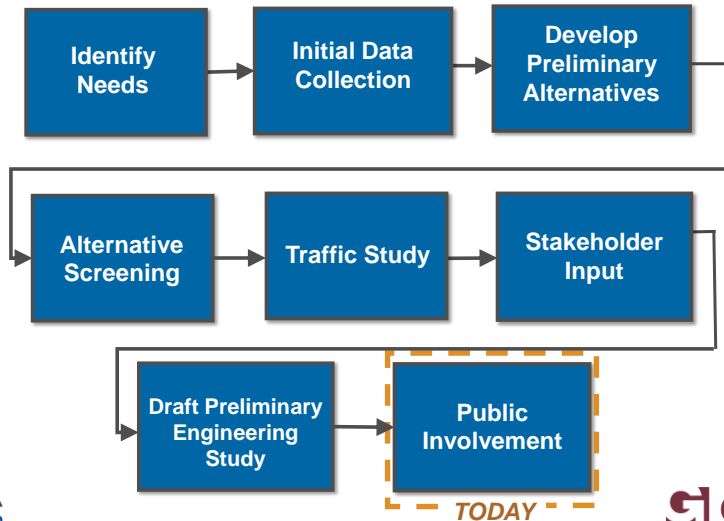
Bridge Improvements – ODOT 8 Year Work Plan

I-40 Corridor is not Programmed – No Funding or Schedule



This map shows some of the recently completed construction projects in the corridor as well as the projects currently in ODOT's 8-Year Work Plan. We are going to be talking about the I-40 over Sunnyslane Road project today. The I-40 Corridor improvements are NOT currently programmed. There is no funding or schedule for those improvements right now.

Study Development Process



This chart shows the steps that we have taken in terms of the I-40 Section 1 corridor study. We began by identifying the need for improvements, collected data about the corridor, developed some preliminary alternatives and did an initial screening. Following the traffic study, we met with various stakeholders in the corridor, including representatives from Del City, Midwest City, Rose State College, and Tinker Air Force Base, to discuss our findings and gather their input. All the analysis and stakeholder feedback was incorporated into a Draft Preliminary Engineering report. Once we get the public's feedback, we will finalize the report and move forward with the preferred alternative.



Initial Data Collection



Next we will talk about the initial data collection.

Environmental Considerations

Reconnaissance Level Environmental Investigations were Completed:

- Tribal Property
- Public Parks and Recreation Areas
- Socioeconomic
- Potential Hazardous Materials Sites
- Historic Properties and Archeological Sites
- Streams and Wetlands
- Floodplains
- Protected Species
- Noise



ODOT started by reviewing the project area for environmental considerations. At this stage of project, this is a high-level review that includes data base searches as well as some site visits. This list includes the type of environmental features ODOT is looking to identify.

Traffic Data and Observations

Interstate 40

- 110,200 Vehicles/Day (2025)
- 135,000 Vehicles/Day (2045)
- 12% Trucks

Frontage Roads

- Range of 3100-9800 Vehicles/Day (2045)
- 5-10% Trucks

Traffic Flow Observations

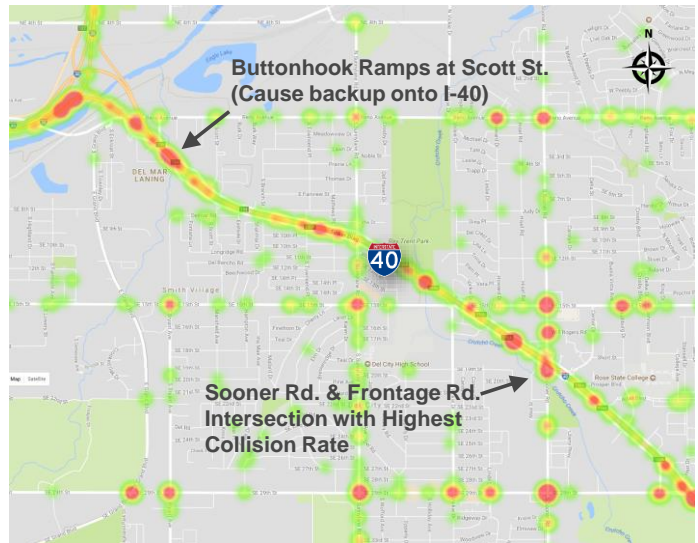
- Two Way Frontage Road Signals
- AM Slow Downs
- PM Slow Downs



Next, ODOT evaluated the traffic in the area which includes traffic counts for I-40 and the frontage roads. The traffic counts are projected forward to estimate the amount of traffic there will be in the future. For I-40, ODOT is projecting traffic to grow to 135,000 vehicles per day by 2045 with 12% of those vehicles being trucks. The frontage roads vary from 3,100 to 9,800 vehicles per day with up to 10% of those vehicles being trucks. Future traffic projections allows us to design facilities to accommodate traffic for at least the next 20 years.

Field observations are also important to determine trends. ODOT has observed slowdowns at the frontage road signals and on I-40 during the AM and PM peak commute times.

Collision Data – Section 1



On the right side of the screen is a heat map that indicates traffic collisions. Red areas represent high numbers of collisions. You see one of the red areas near the buttonhook ramps at Scott Street which is also shown in the aerial view on the left side of the screen. Traffic backs up from these ramps onto I-40, where high-speed traffic is traveling through the corridor. The intersection with the highest collision rate is at Sooner Road and the Frontage Road on the south side of I-40. Collisions here are likely due to sight issues at this skewed intersection.

Collision Data

- **Total: 2,036 Documented Collisions on I-40 (2011-2020)**
 - 28% Involve Injury (550 Injuries and 10 Fatalities)
- **Frontage Roads see Wide Variety of Collisions with Several Head on Collisions**



ODOT looked at the number and severity of traffic collisions over a 10-year period. The total number of collisions on I-40 was 2,036, which is higher than previous years, in part due to the ongoing construction. 28% of these collisions involved injury with 550 injuries and 10 fatalities. The percent with injury is reduced from previous years, but this is likely due to slow downs caused by construction which resulted in more non-injury accidents. The frontage roads see a wide variety of types of collisions with several head on collisions on the existing two-way frontage roads.



Existing Conditions



Next we will talk about Existing Conditions in the corridor.

Existing Conditions

Roadway Deficiencies

- Highest Roadway Classification
- Access to I-40 and Frontage Roads
 - Spacing
 - Geometry
- Intersection Sight Distance
- Frontage Road System
 - Skewed Intersections
 - Access
 - One-Way/Two-Way



Next, ODOT analyzed the existing conditions to determine what needs to be fixed, starting with roadway deficiencies. Interstates are the highest roadway classification with the strictest design criteria set by the federal government. These highways have very limited access with only ramp connections so that traffic can get up to speed before merging with the thru traffic. For this stretch of I-40, there are multiple ramps close together. For example, the on-ramp from Sooner Road and the off-ramp to SE 15th Street has 600 feet of weave distance as shown on the screen. At 55 miles per hour, that gives you 11 seconds to accelerate out of the ramp lane and merge into I-40 traffic which is not enough time. Today's minimum standard weave distance is 1600 feet.

Existing Conditions

Roadway Deficiencies

- Highest Roadway Classification
- Access to I-40 and Frontage Roads
 - Spacing
 - Geometry
- Intersection Sight Distance
- Frontage Road System
 - Skewed Intersections
 - Access
 - One-Way/Two-Way



The existing ramps along I-40 also have a nonstandard layout with small, tight curves at the frontage roads as shown in the picture above. Frontage road traffic is supposed to stop for traffic coming off the ramp. To see the traffic coming off the highway, you must look over your shoulder, which leads to poor intersection sight distance and increases the chances of traffic collisions.

Existing Conditions

Roadway Deficiencies

- Highest Roadway Classification
- Access to I-40 and Frontage Roads
 - Spacing
 - Geometry
- Intersection Sight Distance
- Frontage Road System
 - Skewed Intersections
 - Access
 - One-Way/Two-Way



Along SE 15th Street there are two five-legged intersections with roads entering at different angles. This contributes to intersection sight issues as well as traffic confusion.

Existing Conditions

Roadway Deficiencies

- Highest Roadway Classification
- Access to I-40 and Frontage Roads
 - Spacing
 - Geometry
- Intersection Sight Distance
- Frontage Road System
 - Skewed Intersections
 - Access
 - One-Way/Two-Way



Next let's look at the frontage roads. The local roads and frontage roads intersect at skewed angles and include numerous access points. Some of the intersections are near the ramps, which invites drivers to cross multiple lanes to try and get on I-40. All these factors contribute to higher collision rates.

Existing Conditions

Bridge Deficiencies

- Scott, Sunnyslane, Hudiburg
- Age (1960 – 64 Years Old)
- Vertical Clearance
- Horizontal Clearance



ODOT evaluated the three bridges in the corridor that have not yet been replaced at Scott Street, Sunnyslane Road, and Hudiburg Drive. These structures were built in 1960, are 64 years old, and are approaching the end of their design life. ODOT does routine inspections of bridges to determine if they can be safely traveled or if they need repair work. While all three of these bridges are safe, they all need to be replaced to accommodate more lanes both under the bridges and on top of the bridges. Additionally, all three bridges need to be raised to meet the minimum vertical clearance of 16 feet 9 inches.



Design Alternatives

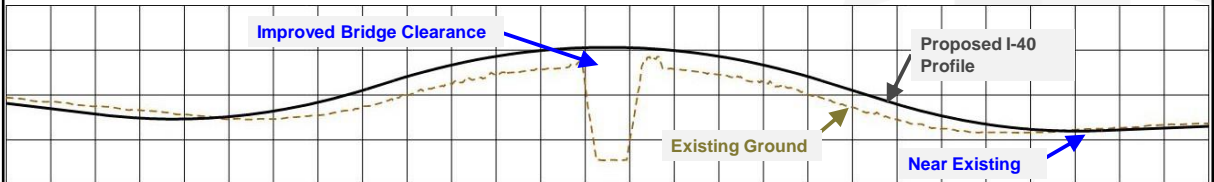
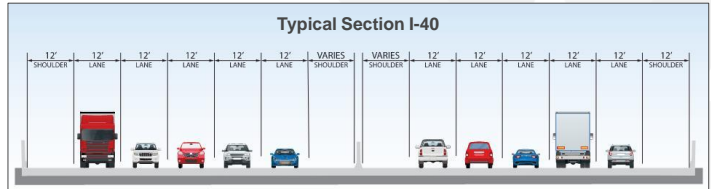


Now we are going to discuss the alternatives studied for the corridor.

Development of Alternatives

Similarities

- I-40 Typical Section
- I-40 Profile
 - Improve Clearance to Min. 16'-9"
 - Near Existing to Maintain Traffic

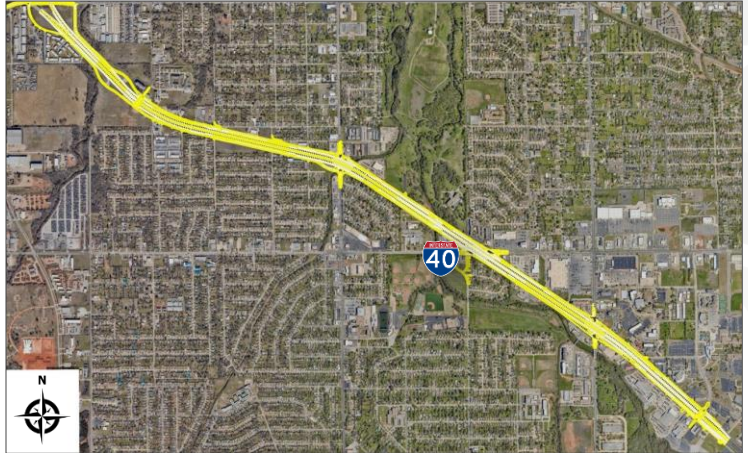


Once ODOT finished analyzing the existing conditions, we started designing alternatives to address the substandard areas. All alternatives developed for this project have elements that are the same, such as the I-40 Typical Section, shown in the upper right-hand corner of the screen. This is the view as you are driving down the highway. The new proposed I-40 typical section includes wider shoulders, four lanes of thru traffic and auxiliary lanes for the ramps. In addition, the profile, or the hills and valleys as you drive along the road, for I-40 is the same for all alternatives. We will be raising the I-40 profile to improve the vertical clearance over the bridges while also staying close to the existing ground away from the bridges. Staying near the existing ground makes maintaining traffic during construction easier.

Development of Alternatives

Alternatives

- Alternative 1
 - One-way frontage road
 - Reduced number of access points
 - Slip ramps

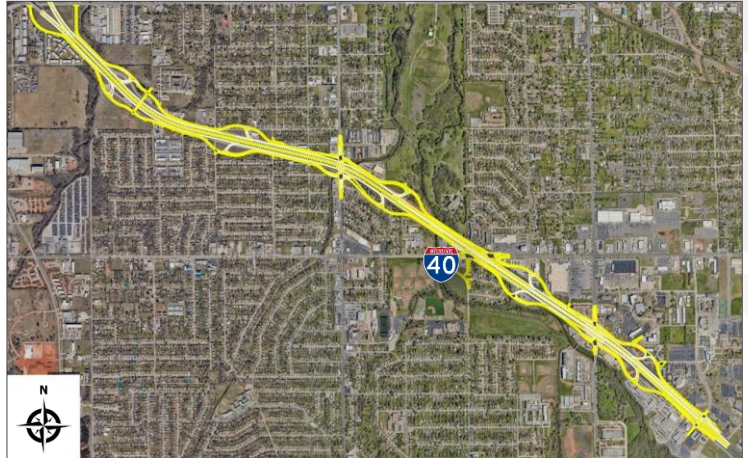


Next, we are going to show you an overview of the alternatives we designed. Alternative 1 is shown on the right side of the screen. This alternative includes one-way frontage roads and a reduced number of ramps or access points to I-40. Additionally, the ramps will be slip style ramps, which only work with one-way frontage roads. Slip ramps have a smaller footprint than other style ramps.

Development of Alternatives

Alternatives

- Alternative 2
 - Two-way frontage roads with buttonhooks
 - Reduced Number of Ramps

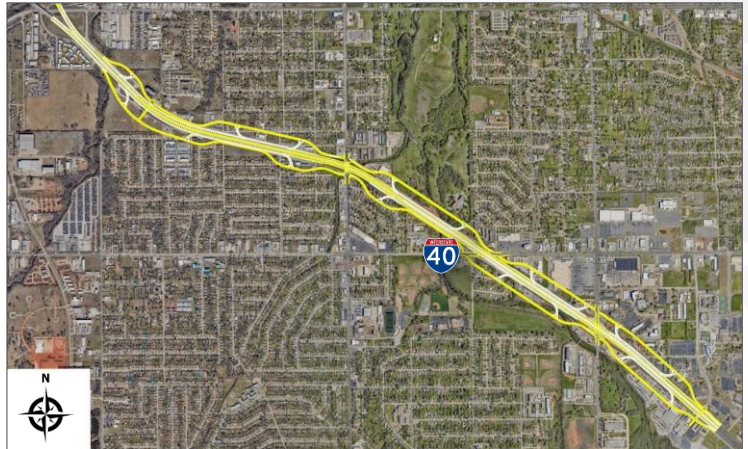


Alternative 2 includes two-way frontage roads with buttonhook style ramps. This type of ramp is needed with two-way frontage roads to provide a perpendicular intersection so traffic from the ramps can turn either left or right. The buttonhook ramps are pushed away from I-40 to provide distance for traffic to stack up and limit impacts on I-40 thru traffic. The footprint of Alternative 2 is much bigger than Alternative 1.

Development of Alternatives

Alternatives

- Alternative 2A – Full Access
 - Two-way frontage roads with buttonhooks
 - Looked at maintaining all ramps



Finally, an alternative was designed that would maintain the two-way frontage roads and as many ramps as possible. This is shown on the screen as Alternative 2A. Again, with two-way frontage roads we must use buttonhook ramps that are pushed out from I-40. With more ramps, the footprint for Alternative 2A is very wide and would affect many homes and businesses. This alternative was not developed further due to the high number of impacts.

Preferred Alternative

- Alternative 1 is ODOT's preferred alternative
 - More safety benefits
 - Better traffic operations with less delay
 - Fewer impacts to surrounding properties
 - Improved travel times

	Alt 1	Alt 2
Safety	✓	
Traffic Operations	✓	
Minimized Impacts	✓	
Travel Times	✓	

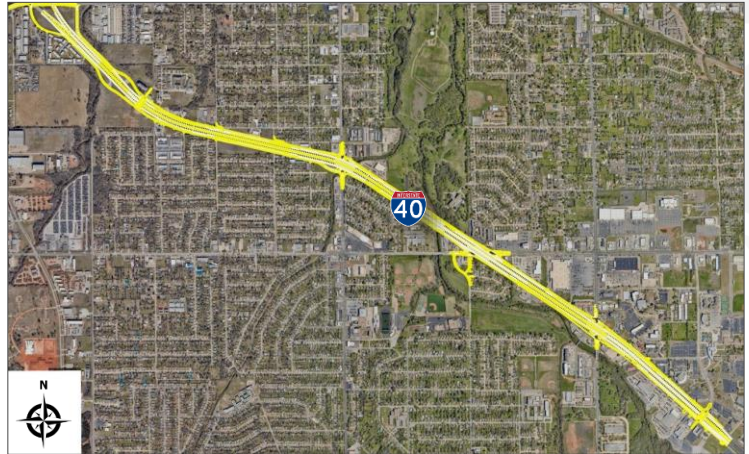


ODOT evaluated Alternatives 1 and 2 in terms of their safety, traffic operations, impacts to right-of-way and the environment, and travel times. In all cases, Alternative 1 outperformed Alternative 2. Therefore, ODOT has identified Alternative 1 as the preferred alternative. Next, we'll go into some more detail about Alternative 1 and each of the factors listed here.

Development of Alternatives

Alternative 1

- One way frontage road
- Reduced number of access points
- Slip ramps

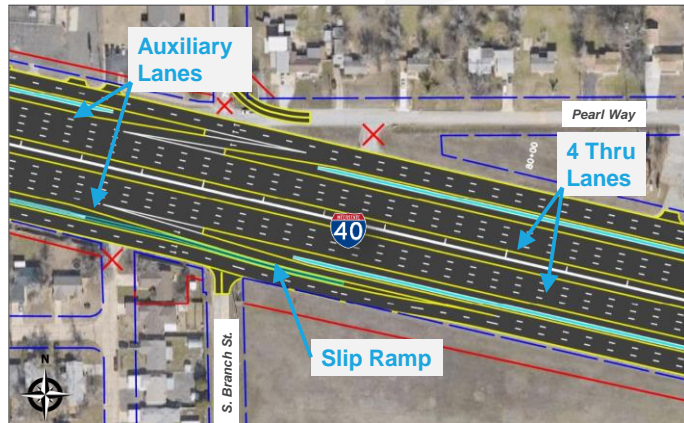


As a reminder, Alternative 1 includes one-way frontage roads with slips ramps. The number of access points or ramps has been reduced to improve flow on the mainline. Interstates are the highest classification of roadways with very limited access. The purpose of interstates is to increase mobility for drivers and move traffic through the area. In contrast, Frontage Roads have more access to funnel traffic to the interstate, but this reduces mobility or traffic flow. It can be challenging to see details on this screen, so please refer to the Exhibits page on the website for more detailed exhibits.

Alternative 1

Alternative 1 (One-Way Frontage Roads)

- Additional Lanes with Wider Shoulders on I-40
- Reduced Number of Ramps (Slip Ramps)
- One-Way Frontage Roads

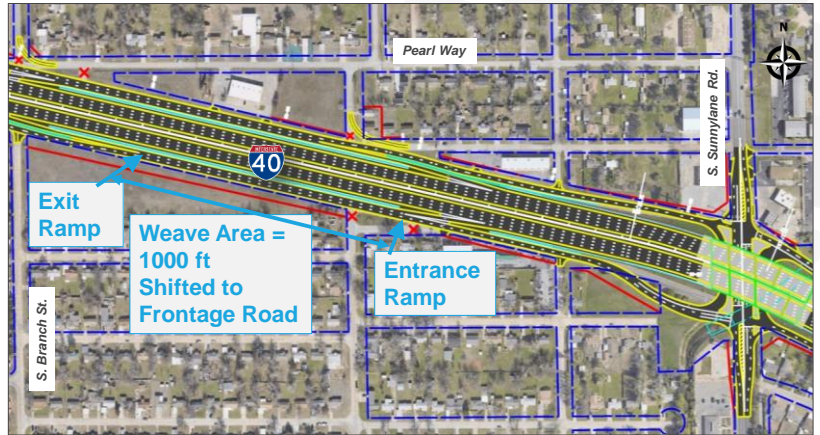


We will now discuss the preferred Alternative 1. Previously in this presentation, we showed you the typical section of the roadway, which is the view of the driver while traveling along the highway. This image shows the view of the highway as if you were looking down on the highway from above. This view clip is from the section of I-40 between Scott Street and Sunnyslane Road. Here, you can see the layout of the four through lanes for I-40 and the auxiliary lanes for the ramps getting on and off the highway. The ramps are slip style ramps which allows drivers to “slip” off the highway and onto the frontage roads.

Alternative 1

Alternative 1 (One-Way Frontage Roads)

- Additional Lanes with Wider Shoulders on I-40
- Reduced Number of Ramps (Slip Ramps)
- One-Way Frontage Roads

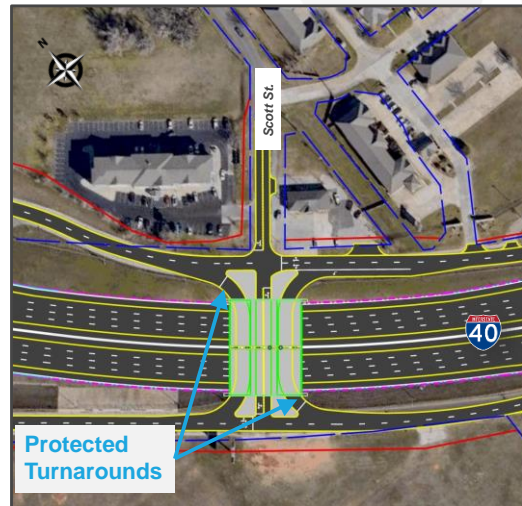


The number of access points or ramps has been reduced and the ramps have been shifted so that weaving traffic is on the frontage road instead of the highway. The image above shows a larger area between Scott Street and Sunnyslane Road. If you are traveling west and you want to exit at Sunnyslane, you would drive under the Scott Street Bridge, immediately exit, and then drive a short distance down the frontage road. You would also pass the entrance ramp to get on the highway. By putting the weave area between ramps on the frontage road, we reduce the speeds of the drivers trying to weave, which is safer and requires less distance. This arrangement of ramps is also known as X-ramps. Another advantage of this arrangement is there would be more storage length for vehicles on the frontage road waiting on the traffic signal at Sunnyslane.

Alternative 1

Alternative 1 (One-Way Frontage Roads)

- Additional Lanes with Wider Shoulders on I-40
- Reduced Number of Ramps (Slip Ramps)
- One-Way Frontage Roads



Alternative 1 includes one-way frontage roads. Traffic will circulate on the way one-frontage roads to access local roads and businesses. Protected turnarounds will be added at streets that cross I-40. This traffic will not have to wait to go through the intersection signal and will have continuous flow. The intersections themselves will be safer because they will only process three directions of traffic which reduces potential collisions and traffic signal phases will be faster with one less cycle.

Scott Street Access

Existing Access

- Exit Movements
- Entrance Movements (WB) →



With these changes to ramps and frontage roads for Alternative 1, drivers will access I-40 in different ways than they do today. For example, today if you are traveling on Scott Street and you want to access I-40 to go downtown, you turn onto the North Frontage Road, turn left on to the ramp, and enter the highway as shown here with the orange arrows.

Scott Street Access

Alternative 1 Access (One-Way FR)

- Exit Movements
- Entrance Movements (WB) →



Proposed Alternative 1 removes the old buttonhook ramps at Scott Street. In the future, if you are on Scott Street and you want to go to downtown OKC, you will have to cross over I-40, drive along the South Frontage Road towards Sunnyslane Road, use the protected turnaround, and then continue along the North Frontage Road to the entrance ramp. This new traffic movement is illustrated with the orange arrows in the picture on your screen.

Scott Street Access

Existing Access

- Exit Movements (WB) →
- Exit Movements



Now we will show you how you will get off the highway and get to the south end of Scott Street. Today, if you are driving on I-40 towards downtown OKC, you exit off the highway right before the Scott Street bridge and drive along the frontage road to the intersection. You would wait for the traffic signal to turn green, then drive across the bridge to the south side as shown with the brown arrows.

Scott Street Access

Alt. 1 Access

- Exit Movements (WB) →
- Exit Movements



In the future, after Alternative 1 is constructed; to travel to the same point on the south end of Scott Street from I-40, you would drive past the Scott Street bridge and then exit. Next, you drive along the north Frontage Road to Reno Avenue, use the protected turnaround to get to the South Frontage Road, and then drive to Scott Street, as shown with the brown arrows



Benefits of the Preferred Alternative



Next we will go into more detail on the benefits of Alternative 1 and why it is the preferred alternative.

Preferred Alternative

- Alternative 1 is ODOT's preferred alternative
 - More safety benefits
 - Better traffic operations with less delay
 - Fewer impacts to surrounding properties
 - Improved travel times

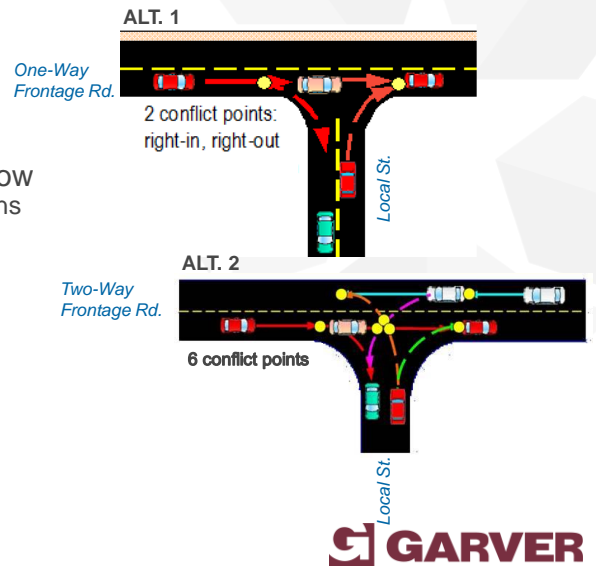
	Alt 1	Alt 2
Safety	✓	
Traffic Operations	✓	
Minimized Impacts	✓	
Travel Times	✓	



You'll remember that ODOT identified Alternative 1 as the preferred alternative because it is the better choice to improve safety, traffic operations, travel times, and reduce impacts. I'll discuss each of these benefits in a little more detail.

Safety

- Additional lanes on I-40
- Fewer ramps
- Fewer conflict points
- One-way frontage roads improve traffic flow
 - Signals only have to accommodate 3 directions
- Protected turnarounds
- Remove 5-leg intersection



Alternative 1 is expected to improve safety through the addition of lanes on I-40, which should relieve some of the congestion-related collisions such as rear ends and side swipes. Fewer ramps will mean fewer conflict points, or locations where traffic must weave and merge together and where collisions are more likely to occur. The one-way frontage roads will also reduce the number of conflict points since traffic will be moving in one direction and turns will not cross multiple directions of traffic. The picture on the slide shows the difference between turns from a local street or business on to a one-way frontage road versus a two-way frontage road. The protected turnarounds in Alternative 1 will also improve safety by removing some of the traffic from the cross-street signals. Finally, Alternative 1 will remove the 5-legged intersection on 15th Street that we showed earlier in the presentation.

Traffic Operations

- Protected turnarounds
bypass signals
- Merging occurs on frontage roads

ALT. 1



Alternative 1 will help traffic move more efficiently. As previously mentioned, the new ramps will be located so that traffic getting on I-40 will be separated from traffic getting off I-40. Instead of weaving across lanes on I-40, these cars will weave on the frontage roads. Removing the weave movement from I-40 means that through traffic on the interstate can continue to remain at speed with less interference. The one-way frontage roads will also offer more efficient movement for vehicles wanting to access destinations on the opposite side of I-40. Instead of having to pass through the traffic signals at the cross streets, traffic exiting on one side of I-40 wanting to go the other side will be able to use the protected turnarounds and make this movement without stopping.

Right-of-Way and Environmental Impacts

Alt 1:

- Reduced footprint
- 144 parcels affected by right-of-way
- 8 relocations
- 1.7 acres of park impact

Alt 2:

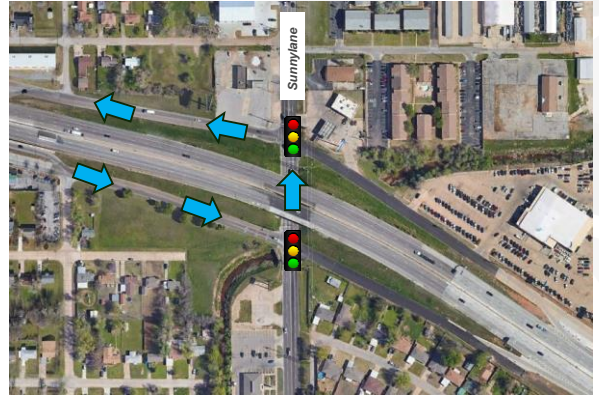
- 184 parcels affected by right-of-way
- 72 relocations
- 5.8 acres of park impact



Alternative 1 will affect fewer private properties and will have less environmental impact. You can see the differences in impacts shown above. The biggest reason for the differences is the interchange configurations. The one-way frontage roads and protected turnarounds in Alternative 1 allow a much smaller footprint for each of the interchanges than would be required for two-way frontage roads. This means fewer impacts to homes and businesses, properties, and environmental resources.

Travel Times

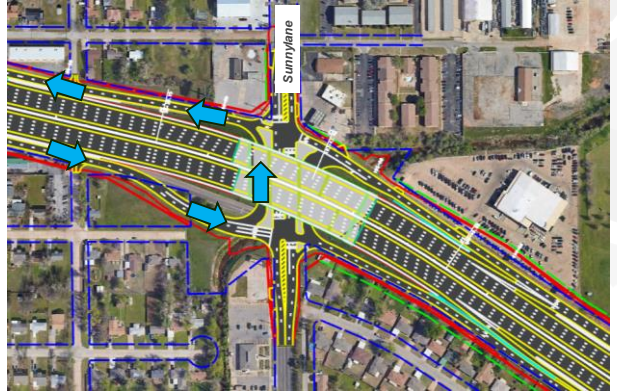
- In general, Alt. 1 has faster travel times than Alt. 2 due to protected turnarounds and less traffic through signals
- Differences range from a few seconds to close to 2 minutes
- Distances may be longer in some cases but there is less delay



Earlier, we showed you the differences in travel patterns that will result from conversion of the frontage roads to one-way. In some cases, trips from Point A to Point B may have to travel a longer distance than they do today. However, in most cases, the amount of time it will take to get from Point A to Point B will be less because traffic will not have to stop at one or more traffic signals. For example, today at I-40 and Sunnylane Road, traffic wanting to exit I-40, turn left on Sunnylane, and then go the other direction on the frontage road must pass through two traffic signals, both of which may cause delay.

Travel Times

- In general, Alt. 1 has faster travel times than Alt. 2 in due to protected turnarounds and less traffic through signals
- Differences range from a few seconds to close to 2 minutes
- Distances may be longer in some cases but there is less delay



Under Alternative 1, the same traffic will exit I-40 and use the protected turnaround to go the other direction. This is a free flow movement with no delay due to signals, resulting in a faster travel time.





I-40 over Sunnyslane



Now we are going to take a closer look at the bridge replacement project at I-40 and Sunnyslane Road.,

I-40 over Sunnyslane

- Design has advanced on I-40 over Sunnyslane Road
 - Replacing existing bridges with new structures
 - Will accommodate future widening of I-40
 - Maintain Ramps



ODOT has advanced the design to replace the existing bridges on I-40 over Sunnyslane Road. This project is currently programmed for construction in 2028. This project will not add lanes on I-40 or change the frontage roads, but the new bridges and the roadway leading up to them will accommodate those future improvements as well as additional lanes on Sunnyslane Road. The existing ramps will include some reconstruction near the current locations. Access to the existing ramps will be maintained throughout construction as much as possible, but some temporary closures may be needed.

I-40 over Sunnyslane

- Design has advanced on I-40 over Sunnyslane Road
 - 86' Wide – 5 lanes of traffic
 - 370'+ long – accommodates future frontage road and Sunnyslane Road improvements
 - Incorporate aesthetics of recent I-40 projects in the corridor
 - No Impacts to Cherry Creek
 - 2 Lanes on I-40 open at all times
 - Temporary Ramp Closure



To provide a little more detail on the project - the new bridges over Sunnyslane will be wide enough to accommodate 5 lanes of traffic in each direction and are over 370' long to accommodate the future improvements to the frontage road system that have been discussed in this presentation. The bridges will incorporate the aesthetics seen on other projects in the corridor like Sooner Road and SE 15th Street. This project will not have any impacts to Cherry Creek – the bridges are compatible with the current configuration of the channel. Two lanes of traffic on I-40 will be kept open at all times during construction. For the most part the ramps will remain open but some temporary ramp closures will be necessary.

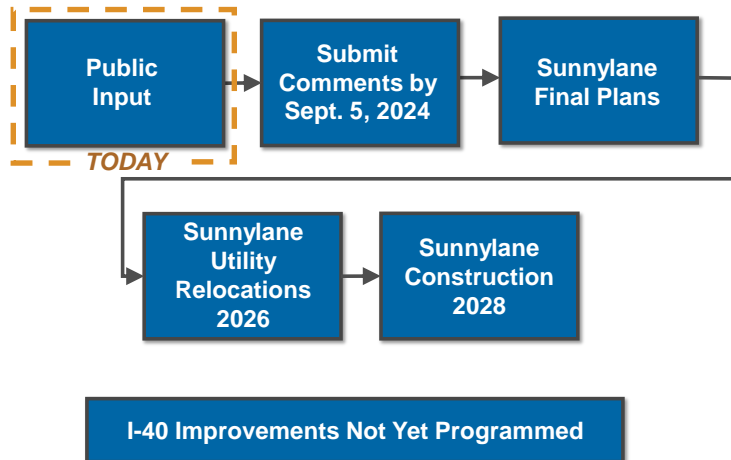
I-40 over Sunnyslane Environmental Studies

- No historic or archaeological resources
- No impacts to Cherry Creek or other waters
- No effects to threatened and endangered species
 - Migratory birds will be protected
 - BMPs to protect water quality
- No impacts to Ray Trent Park
- Potential to encounter contaminated soils will be further investigated
- Noise study will be completed for I-40 widening



Detailed environmental studies have been completed for the I-40 bridge replacement over Sunnyslane Road. No significant impacts to environmental resources have been identified. Because the bridge project does not include any new lanes on I-40, a noise study was not completed at this time. This study will be completed once plans for the I-40 widening project are underway.

Next Steps



This slide shows the next steps for the I-40 East Section 1 Study and for the new bridges on I-40 over Sunnyslane. We would like your feedback on both the study and the bridge project. We ask that you submit your comments by September 5 so that we can compile all the feedback and complete the Preliminary Engineering report. The plans for Sunnyslane will be finalized and utility relocations will begin in 2026. Construction for the Sunnyslane bridges is programmed for 2028. As we mentioned previously, the I-40 improvements are currently not in ODOT's 8-Year Plan, there is currently no funding or schedule for these improvements. However, selecting a preferred alternative now will allow the cities and the public to plan for these changes and make sure future development occurs in a consistent manner.

Thank You for Attending!

Please Submit Your Comments by September 5, 2024

- ✓ Leave Your Comment Form Here Today
- ✓ Mail the Comment Form Back to ODOT:
Environmental Programs Division
200 NE 21st Street
Oklahoma City, OK 73105
- ✓ Email Your Comments to Environment@ODOT.ORG
- ✓ Submit Comments on the Project Website: www.odot.org/I40EastOKC



QUESTIONS?



Thank you for attending. Again, please submit your comments by September 5. You can do that by submitting a form on the website or you can download the form and mail it back to ODOT. You can also submit comments by email.