

VIRTUALOPEN HOUSE

July 7 - 28, 2021

US-64 (Memorial Drive) & US-169 Interchange Tulsa County: JP 33343(04)

www.odot.org/US64-US169Tulsa



VIRTUAL OPEN HOUSE

The Oklahoma Department of Transportation will host a virtual open house for the US-64 (Memorial Drive) and US-169/Creek Turnpike Interchange in Tulsa County. This meeting will present the design for the project and allow the public to submit input. Due to concerns over the spread of COVID-19, this will be a web-based format (no in-person meeting). The information will be available beginning July 7, 2021 and comments are requested by July 28, 2021.



Purpose

The purpose of the project is to improve safety and traffic flow at the US-64 (Memorial Drive) and US-169/Creek Turnpike interchange. The existing interchange is a traditional diamond configuration. Memorial Drive carries approximately 47,000 vehicles per day (vpd) near the interchange with a large volume of traffic using the Creek Turnpike ramps. The northbound to eastbound and westbound to southbound movements at the ramps are dominant movements, both carry over 10,000 vehicles per day. Due to these ramp volumes and overall heavy traffic on Memorial Drive, congestion at the interchange is common. Notable backups occurring on Memorial Drive south of the Turnpike in the AM and on the westbound exit ramp of the Creek Turnpike in the PM. Currently, these ramps provide a Level of Service F (rated on an A-F scale – similar to a report card), meaning there is severe delay. Traffic volumes on Memorial Drive are projected to increase to approximately 60,000 vpd by 2045, and congestion is anticipated to worsen in the future as traffic volumes increase.

The interchange area has witnessed a yearly average of 134 collisions in recent years. One fatality and eight serious injury collisions occurred between 2013-2017. Collisions at the interchange have been primarily related to turns at the ramps or rear-end collisions, indicative of congested conditions.







ENVIRONMENTAL PROGRAMS DIVISION

200 N.E. 21ST STREET OKLAHOMA CITY, OK 73105-3204 WWW.ODOT.ORG

June 29, 2021

Dear Stakeholders, Property Owners and Utility Owners:

Re: Virtual Public Open House for US-64 (Memorial Drive) at US-169 Interchange, Tulsa County, ODOT JP No. 33343(04)

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), is proposing improvements to the US-64 (Memorial Drive) and US-169/Creek Turnpike interchange in Tulsa County. The existing interchange is a traditional diamond configuration. Memorial Drive carries approximately 47,000 vehicles per day (vpd) near the interchange with a large volume of traffic using the Creek Turnpike ramps. Due to the ramp volumes and overall heavy traffic on Memorial Drive, congestion at the interchange is common. Currently, the ramps provide a Level of Service F (rated on an A-F scale), meaning there is severe delay. Traffic on Memorial Drive is projected to increase to approximately 60,000 vpd by 2045, and congestion is anticipated to worsen in the future.

The interchange area has witnessed a yearly average of 134 collisions in recent years. One fatality and eight serious injury collisions occurred between 2013-2017. Thirty-eight collisions occurred either on the westbound off-ramp or on the Turnpike mainline approaching the ramp. Collisions at the interchange have been primarily related to turns at the ramps or rear-end collisions, indicative of congested conditions.

ODOT proposes to construct a Diverging Diamond Interchange (DDI) at the Memorial Drive and the US-169/Creek Turnpike interchange. This innovative interchange configuration enhances the operation of a traditional diamond by moving the arterial street traffic to the opposite side of the roadway at the on- and off-ramps. The proposed DDI at this location will be a "retrofit", meaning it will be constructed within the existing interchange footprint. The existing bridge on the Creek Turnpike over Memorial Drive will remain in place, and no additional right-of-way will be purchased. The adjacent multi-use trail and current sidewalk connectivity will be enhanced with signalized crosswalks throughout the interchange.

Due to ongoing concerns about COVID-19, ODOT will host a virtual public open house from **July 7 - 28, 2021** to present the design for the project and allow the public to submit input. This pamphlet contains additional information about the virtual public open house.

If you are leasing this property, please notify your lessee of this virtual public open house. Should you have any questions regarding this project, please email environment@odot.org, or call 405-325-3269 and leave a detailed message.

Respectfully,

Sivanuja S Sundaram Siv Sundaram, P.E.

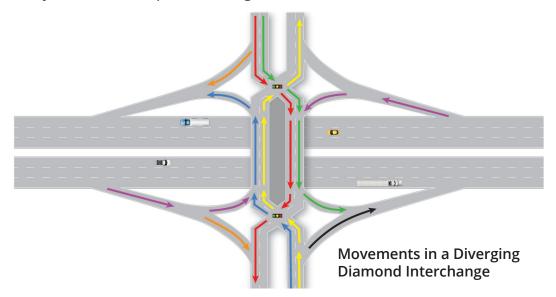
Environmental Programs Division Engineer

The Oklahoma Department of Transportation (ODOT) ensures that no person or groups of persons shall, on the grounds of race, color, sex, religion, national origin, age, disability, retaliation or genetic information, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any and all programs, services, or activities administered by ODOT, its recipients, sub-recipients, and contractors. To request an accommodation please contact the ADA Coordinator at 405-521-4140 or the Oklahoma Relay Service at 1-800-722-0353 no later than 72 hours before any scheduled event. If you have any ADA or Title VI questions email ODOT-adatitlevi@odot.org.

Project Description

ODOT proposes to construct a Diverging Diamond Interchange (DDI) at Memorial Drive and the Creek Turnpike (US-64/US-169). This innovative interchange configuration enhances the operation of a traditional diamond by moving the arterial street traffic to the opposite side of the roadway at the on- and off-ramps. For the Memorial Drive and Creek Turnpike interchange, ODOT wanted to improve the congestion without affecting adjacent properties. The proposed DDI at this location will be a "retrofit" meaning it will be constructed within the existing interchange footprint. The existing bridge on the Creek Turnpike over Memorial Drive will remain in place, and no additional right-of-way will be purchased. The adjacent multi-use trail and current sidewalk connectivity will be enhanced with signalized crosswalks throughout the interchange.

Construction is currently anticipated to begin in the fall of 2022. The interchange will remain open and access will be provided to all business during construction. Lane closures will be needed and delays can be anticipated during construction.



Diverging Diamond Interchange (DDI)

The first DDI in the United States opened in 2009 in Missouri. Today, more than 200 interchanges of this type are open across the country. DDIs can reduce the number and severity of collisions compared to a traditional diamond. Because of its unique design, left turning vehicles no longer cross the path of oncoming traffic which significantly reduces the potential for collisions. A conventional diamond interchange has 18 conflict points or locations where collisions can occur. A DDI reduces this number to 8 by removing left turn conflicts. Recent research of DDI implementation across multiple states found that DDIs reduce total crashes at ramp intersections by 33% and injury/fatal crashes by 41%.

DDIs also reduce congestion. The DDI eliminates the need for separate left turn arrows at the ramp intersections, which reduces wait time and allows higher capacity for interchanges with heavy ramp volumes, like Memorial Drive at the Creek Turnpike. Prior studies have shown that DDIs can handle 10 to 30 percent more traffic volumes than a traditional diamond interchange and accommodate twice the left turn traffic as the conventional design.

A survey done by MoDOT shows that 97% of drivers feel safer using the new DDI. While crossing to the opposite side of the road may sound confusing, the use of medians, signing and striping on the roadway make the routes very clear and drivers soon become accustomed to the new design.

Proposed DDI Interchange at US-64 (Memorial Drive) and US-169/Creek Turnpike

More information on Diverging Diamond Interchanges can be found at the following links. These links are also available on the virtual open house website.

General Diverging Diamond Information:

https://divergingdiamond.com

ODOT's first Diverging Diamond Interchange:

https://oklahoma.gov/odot/citizen/major-projects/completed-projects/i-40-and-sh-6diverging-diamond-interchange.html

FHWA DDI info pamphlet (Revised July 2020):

https://safety.fhwa.dot.gov/intersection/crossover/fhwasa14039.pdf

Alternative Intersections:

Diverging Diamond Interchange:

https://www.youtube.com/watch?v=eLAwwl3EtN4

DDI Case Study – I-44 & SR13 in Springfield, Missouri:

https://www.youtube.com/watch?v=R45zqZBxs-k&t=70s

PROJECT INFORMATION SUMMARY

- Total Estimated Construction Cost of Project: \$7.44 million
- Construction Programmed to Start in: 2022
- Current Annual Average Daily Traffic (AADT) in year 2020: 47,000 vehicles per day (Memorial Drive)
- Future Estimated AADT by Year 2045: 60,000 vehicles per day (Memorial Drive)

*Totals **DO NOT** include *Toll Roads*

DISTRICT 8 ENGINEER: RANDLE WHITE, P.E.

**Totals DO NOT include County Bridges

*Total Road Miles:

1,661.84

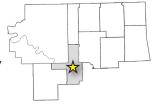
*Total Interstate Miles: 39.40

**Total Bridges:

1,100

Counties: Craig, Creek, Delaware, Mayes, Nowata, Osage, Ottawa, Pawnee, Rogers,

Tulsa, Washington



PLEASE PROVIDE YOUR COMMENTS BY JULY 28, 2021

For more information about the project

(405) 325-3269 environment@odot.org



