

# Bridging the Gap: Multimodal Connections on I-35 over the Oklahoma River

Oklahoma Department of Transportation  
Multimodal Project Discretionary Grant Application  
August 21, 2023



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## *OUTCOME CRITERIA NARRATIVE*

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## Outcome Criteria

### Safety

#### Safety Summary

Oklahoma Department of Transportation (ODOT) uses crash data from the Oklahoma Highway Safety Office (OHSO) because it provides in-depth crash data for specific project locations. OHSO produces publications and problem identification data including in-depth analysis of crash numbers, rates, and locations. The OHSO crash data is used by highway safety professionals across Oklahoma to evaluate traffic safety priority areas and propose potential solutions. OHSO gathers data from various sources including:

- Motor Vehicle Crash Reports
- Motor Vehicle Citation Data
- Drivers License Records
- Motor Vehicle Registration Records
- Breath Test Analysis Reports
- Attitude and Awareness Surveys
- Occupant Protection Surveys
- Fatality Analysis Reporting System
- Department of Transportation Crash Rates

As shown **Table 1**, in There were a total of 4,371 collisions at the I-35/I-40 interchange (the project area) between January 1, 2012, and December 31, 2021 (latest available data) involving 1,686 injured persons and 24 fatalities. This is the equivalent of 1.2 collisions per day over 10 years. Of those injuries, 110 were of sufficient severity that the injured person was incapacitated.

*Table 1. I-35/I-40 Interchange Collisions*

Type of Collision	Fatality	Injury	Property Damage	Total
Rear-End	3	646	1,656	2,305
Head-On	4	4	1	9
Right Angle	1	64	81	146
Angle Turning	1	54	149	204
Other Angle		1	3	4
Sideswipe Same Direction	1	137	934	1,072
Sideswipe Opposite Direction	1	5	4	10
Fixed Object	6	143	226	375
<b>Pedestrian</b>	<b>2</b>	<b>6</b>		<b>8</b>
<b>Pedal Cycle</b>		<b>1</b>		<b>1</b>
Animal			1	1
Overturn/Rollover	1	38	23	62
Other Single Vehicle Crash		7	29	36
Other		24	114	138
<b>Total</b>	<b>20</b>	<b>1,130</b>	<b>3,221</b>	<b>4,371</b>

*SOURCE: OKLAHOMA HIGHWAY SAFETY OFFICE*

## Safety Benefits for Non-Motorized Travelers

Although interstates do not permit pedestrians and cyclists, the I-35/I-40 interchange had nine collisions involving pedestrians or cyclists, two of which resulted in fatalities. With the Oklahoma River trails currently under construction along the north and south banks of the Oklahoma River, there is also the potential for a greater number of pedestrians or cyclists trying to cross the existing bridge upon the completion of the trails which could increase the number of collisions. The Project would provide a safe connection for non-motorized travelers between the north and south side of the Oklahoma River and would be the primary crossing within a mile of the current riverfront development at the First Americans Museum and Riversport development (described further in the **Equity, Multimodal Options, and Quality of Life** section). The Project would help reduce pedestrian and cyclist crashes along the interstate at this interchange in the future. The **Benefit Cost Analysis Narrative** includes additional details about the safety benefits of this Project.

## Crash Reduction Factors

The FHWA Desktop Reference for Crash Reduction Factors was used to determine how each of the proposed safety improvements would impact the collision rates. When multiple collision rates were given for the same improvement, the median value is represented here:

- Replacing the bridges has the highest crash reduction factor (CRF) of the design improvements. The CRF for bridge replacement is 45, correlating to a reduction in the rate of collisions of 45 percent for all types of collisions.
- The CRF factor for increasing the number of travel lanes has a CRF of 25. This indicates it would further reduce the rate of collisions by approximately 25 percent for all types of collisions.
  - However, increasing the number of lanes has a greater impact on rear-end and sideswipe collisions, reducing them by approximately 40 percent and 35 percent respectively. As shown in **Table 1**, these are the two most common collision types making up over 75 percent of the total collisions found on the roadway extent.
  - This would further reduce the rate of collisions by increasing the CRF from the initial 25 percent to 35 percent reduction due to the lane increase.
- Widening the shoulders from 4-foot to 12-foot will result in a CRF of 20. This correlates to an additional reduction of collisions by 20 percent.

Combining the Crash Reduction Factors results in a total reduction in crashes; it is anticipated that a total collision reduction of between 45 percent (bridge) and 48 percent (roadway) should occur through the Project extents.

In summary, the I-35 bridge replacement and roadway improvements would help enhance safety and operation, protecting motorized travelers by reducing the number of collisions in the I-35/I-40 interchange area by almost 50 percent.

## State of Good Repair

### Current Bridge Conditions

Prior bridge maintenance improvements have improved the bridges from previously being rated as Structurally Deficient (SD), but over time, continued wear has put the bridges at risk of becoming SD again. In the 2022 NBI bridge inspection report, the deck, superstructure, and substructure had a condition rating of 5 (Fair). If any of the three ratings were to decrease to a rating of 4 (Poor), the bridges would become SD. ODOT understands that if the bridges are not replaced it may threaten future transportation network efficiency, mobility of goods and people, and regional and local economic growth and thus included is in the [eight-year Construction Work Plan](#) (CWP) and scheduled for construction in 2028.

### Recent Projects

In 2019, an interim ramp project was completed on the I-40 to I-35 ramps to add a lane and shoulder. The project added a lane to both the NB and SB I-35 bridges over the Oklahoma River by reconfiguring the striping and reducing the shoulder widths. The existing shoulder width was reduced from 10 feet to 4 feet to accommodate the additional 12-foot driving lane. This capacity improvement, while helping reduce traffic queuing and improving safety concerns, caused the existing two I-35 bridges to become functionally obsolete. The current bridges' lane configuration reduces traffic backups on I-40 that were leading to a high density of rear-end collisions in the ramp queues. The ramp project did not relieve capacity and collision issues south of the I-35 bridges, which are anticipated to increase with Oklahoma's growing population and the rising ADT numbers, which are expected to nearly double by the year 2040 as noted in the **Transportation Challenges** section in the **Project Description**.

### Future Maintenance Costs, Savings, and Responsibilities

Over the next 36 years, the estimated maintenance and rehabilitation costs to maintain the two I-35 bridges total \$8.1 million. Over 30 years, maintaining the two new bridges and multimodal bridge totals \$2.1 million, significantly reducing maintenance costs for ODOT. The millions of dollars in savings could be diverted to other critical maintenance needs around the state.

As a state transportation agency, ODOT plans, constructs, and maintains the state highway system in Oklahoma. ODOT will maintain the I-35 bridges and the city of Oklahoma City will maintain the multimodal bridge and access from the bridge to the Oklahoma River trails in a state of good repair. ODOT and City of Oklahoma City have negotiated numerous maintenance agreements on previous projects and have standard language and terms.

### Improved Performance and Conditions with New Bridges

Replacing the I-35 NB and SB bridges will restore and modernize these critical infrastructure assets along one of the nation's most traveled corridors to a full level of performance and this Project will lengthen the useful life of the I-35 bridges. As noted above, replacing the two bridges will significantly reduce future operations and maintenance costs throughout the life of the bridges. The Project is in ODOT's [2022-2031 Transportation Asset Management Plan](#) (TAMP) and it is aligned with the TAMP's goal to *"preserve and maintain the condition of Oklahoma's multimodal transportation system in a state of good repair through risk-based, data-driven decision-making processes"*.

## Economic Impacts, Freight Movement, and Job Creation

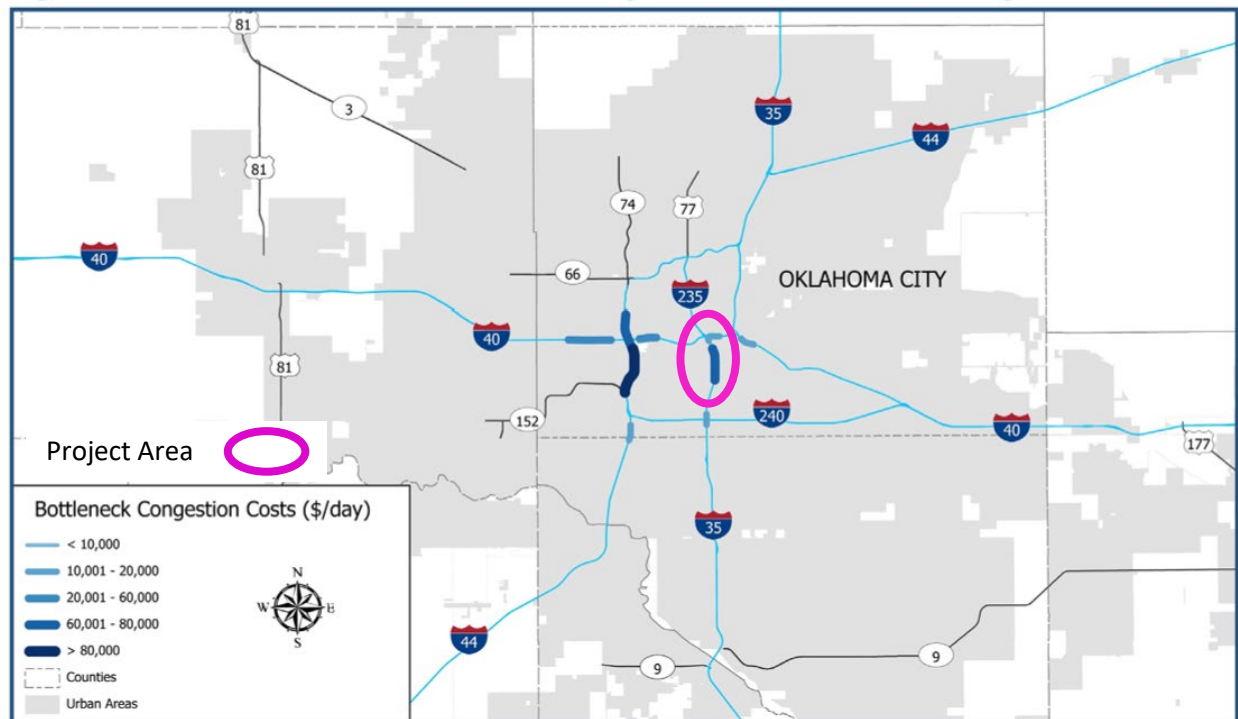
### Freight Movement

I-35 traverses six states and is on the National Highway System (NHS), Strategic Highway Network (STRAHNET), National Highway Freight Network (NHFN), and the National Multimodal Freight Network (NMFN). I-35 is one of the most significant truck freight corridors in the U.S and the highest volume truck corridor in Oklahoma. There are over 19,000 trucks per day that cross the I-35 NB and SB bridges with average daily truck traffic at 7 percent.

In Oklahoma City, I-35 intersects other major east-west freight corridors, I-40 and I-44, and thus the I-35 bridge in Oklahoma City is critically located at the crossroads of intercontinental goods movement, linking west and east coast ports to major urban areas throughout the country, and connecting to the major US-Mexican trade route. The new I-35 bridges are anticipated to reduce congestion and improve reliability for freight movement.

While the project location was not identified as a top 100 national freight bottleneck in FHWA's 2019 analysis, this Project addresses one of the worst freight bottlenecks in Oklahoma as identified in the 2023-2030 Oklahoma Freight Transportation Plan. That analysis indicates that daily cost of congestion at the at the project location bottleneck could be as high as \$80,000 per day or nearly \$30 million annually as shown in **Figure 1**.

*Figure 1: Oklahoma Freight Bottlenecks*



SOURCE: ANALYSIS OF HIGHWAY PERFORMANCE MONITORING SYSTEM AND NATIONAL PERFORMANCE MANAGEMENT RESEARCH DATA SET 1

<sup>1</sup>[https://oklahoma.gov/content/dam/ok/en/odot/ompt/freightplan/2030freightplan/OKFreightPlan2023-2030\\_FINAL\\_FreightPlan\\_withAppendices-1.pdf](https://oklahoma.gov/content/dam/ok/en/odot/ompt/freightplan/2030freightplan/OKFreightPlan2023-2030_FINAL_FreightPlan_withAppendices-1.pdf)

The 2022 Truck Travel Time Reliability (TTTR) on the I-35 NB and SB bridges was 2.36 and 4.33 respectively, which is rated as poor, more than double the ODOT's TTTR Interstate reliability target of 1.33. Additional information on TTTR is in the **Transportation Challenges Section** in the **Project Description**. Replacing and widening the I-35 bridges will improve traffic flow and freight reliability and therefore facilitate the movement of goods through both Oklahoma and the United States. Additionally, the Project improves the largest single North-South truck freight corridor in the Central United States.

In Acres Park, which lies just south of the Project location, there are several freight and logistic centers which would benefit from improved freight flows across I-35, including Pallet Logistics of America, Saia LTL Freight, Old Dominion Freight Line, and Estes Express Line. There are limited truck parking areas in the Project area.

### **Affordable Transportation Options**

Due to its multimodal nature, the Project will improve mobility for both motorized and active transportation users. Drivers and truck freight will benefit from improved travel times, increased safety, reduced congestion and improved reliability on the I-35 NB and SB bridges, while active transportation users will have a critical new safe, affordable, attractive, and comfortable connection across the Oklahoma River using the multimodal bridge between residential and mixed-use portions of Oklahoma City. These connections will improve access to jobs and opportunities as further detailed in the **Equity** section.

### **Enhance Recreational and Tourism Opportunities**

The Oklahoma River was dammed in 2004 as part of Oklahoma City's first Metropolitan Area Projects (MAPS) capital improvement program for new and upgraded sports, recreation, entertainment, and cultural facilities. The \$54 million project, supported by a self-imposed sales tax increase, rejuvenated the dry riverbed of the former North Canadian River by creating a dam-controlled river segment flanked by landscaped recreation Oklahoma River trails that connect to the larger Oklahoma City Trails network. This transformative public investment led to the privately funded construction of the Chesapeake Boathouse in 2006. There are now numerous boathouses, including the University of Central Oklahoma Boathouse and the \$10 million Devon Boathouse which is home to the U.S. Rowing National High Performance Center.

Because of these investments, and a temperate climate that allows year-round training on the water, the Oklahoma River has quickly emerged as one of the premier rowing venues in the world for both competition and training. In 2007, the USA Rowing World Challenge drew teams from Canada, Mexico, Australia, New Zealand, and Switzerland and in 2008, the U.S. Canoe and Kayak Olympic Trials for flatwater sprint were held on the Oklahoma River.

However, Olympic-level international rowing events require 2,000 meters of unobstructed linear river; the current I-35 bridge piers obstruct that course. The new I-35 bridges and the Project will only have two piers on each bridge; that design will provide adequate room to host future Rowing World Cups, NCAA rowing events, and other officially sanctioned events such as the U.S. Rowing National Championships and Olympic trials. The Project will include spectator viewing areas providing exceptional pedestrian-accessible observation opportunities for

residents and visitors. The previous investments and the continued economic success of Oklahoma City will benefit from having a multimodal bridge over the Oklahoma River.

Riversport has estimated the economic impact of the races announced through 2025 will exceed \$10 million, with each competition drawing 400 to 800 athletes from more than 60 countries for pre-event training weeks the competitions. Executive Director Mike Knopp states, “Hosting international races at this level means that some athletes and coaches will actually move to Oklahoma City to live, work, and train ... You will also have officials, coaches, and family members as well as media. We will see the impact in our hotels, restaurants, transportation, tourism, and entertainment. That is not even considering the economic ripples that happen when a city is elevated like this on the world stage.”

The Project will provide access to Oklahoma City Parks Department’s Regatta Park on the north side of the river and will directly connect to Oklahoma City’s extensive bicycle and pedestrian recreational and transportation trail network illustrated in **the Equity, Multimodal Options, and Quality of Life** section.

### **New Development - OKANA Resort**

The Chickasaw Nation is developing a \$300 million private [OKANA resort](#) next to the First Americans Museum on the downtown riverfront shore and adjacent to the Project (**Figure 2**). In addition to an 11-story, 404-room hotel riverfront hotel, the private resort will include a spa, outdoor adventure lagoon, indoor waterpark, gold center, conference space amphitheater, restaurants, Native American marketplace, and retail outlets. The Project will provide a direct walking or biking connection to and from downtown Oklahoma City and the OKANA resort, which should increase tourism in downtown Oklahoma City and at the OKANA Resort.

The OKANA resort is a mixed-use development and is projected to have a \$97 million impact on Oklahoma City within one year of completion and a billion-dollar impact within the next decade. It is estimated that within the first decade, OKANA resort will create 800 full-time jobs.

The Project will enhance tourism connectivity between downtown Oklahoma City and OKANA resort.

*Figure 2. OKANA Resort Site and Rendering*



SOURCE: UNITED FOR OKLAHOMA Project Area





## Job Creation & Workforce Training Programs

As of July 2023, the average hourly pay for highway construction jobs in the Oklahoma City metro area is \$26.23 an hour, which is higher than the median hourly wage of \$24.54 for all jobs in the region according to the Bureau of Labor Statistics. Recognizing the opportunity these jobs present for economic upward mobility, ODOT annually sponsors a Transportation & Construction Job Fair with industry recruiters. The event is free of charge and allows job seekers to meet with recruiters from all aspects of transportation, civil engineering, surveying, trucking, highway construction and heavy equipment operations. Special emphasis is placed on recruiting women and minorities to attend the event. According to a [recent study](#) by Today's Homeowner reports, Oklahoma ranks in the top 25 of states with the highest percentage of female construction trade workers and there is great opportunity to expand those numbers. A local nonprofit Women Accessing Non-Traditional Trade (WANTT) is also encouraging more women to consider construction as a career path. WANTT provides a free, eight-week pre-apprenticeship training program to teach women skills in tools, construction math, and CPR.

ODOT has also established an On-the-Job Training (OJT) Program in accordance with regulations of the U.S. Department of Transportation at 23 CFR Part 230, Subpart A, Equal Employment Opportunity on Federal and Federal aid Construction Contracts. It is the policy of the Department to require full utilization of all available training and skill improvement opportunities to assure the increased participation of minority groups, disadvantaged persons, and women in all phases of the highway construction industry. The federal OJT program targets disadvantaged individuals, minority groups, and women for entry into journey level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

## Climate Change, Resiliency, and the Environment

### Environmental Justice and Planning

ODOT's considerations of environmental justice in planning are detailed in the **Equity and Public Engagement** sections below.

### Greenhouse Gas Emissions and Air Pollution

Primary goals of replacing the I-35 bridges and adding a multimodal bridge are to reduce congestion on this section of I-35 as traffic volumes in Oklahoma City continue to increase by up to 30% by 2040, and to encourage mode shift to active transportation, both of which would reduce air pollution from carbon dioxide (CO<sub>2</sub>). The Project may also reduce the effect of ozone (O<sub>3</sub>), for which the Oklahoma City region has worked tirelessly to remain in attainment with EPA air quality standards. Oklahoma City is one of the very few major metropolitan areas in the United States to remain in air quality attainment. This Project would be a huge contributor to maintaining attainment in the region and improving air quality, especially in the Historically Disadvantaged Community and Area of Persistent Poverty in the Capitol Hill district adjoining the Project location as further described in the Impacts on Disadvantaged Communities section.

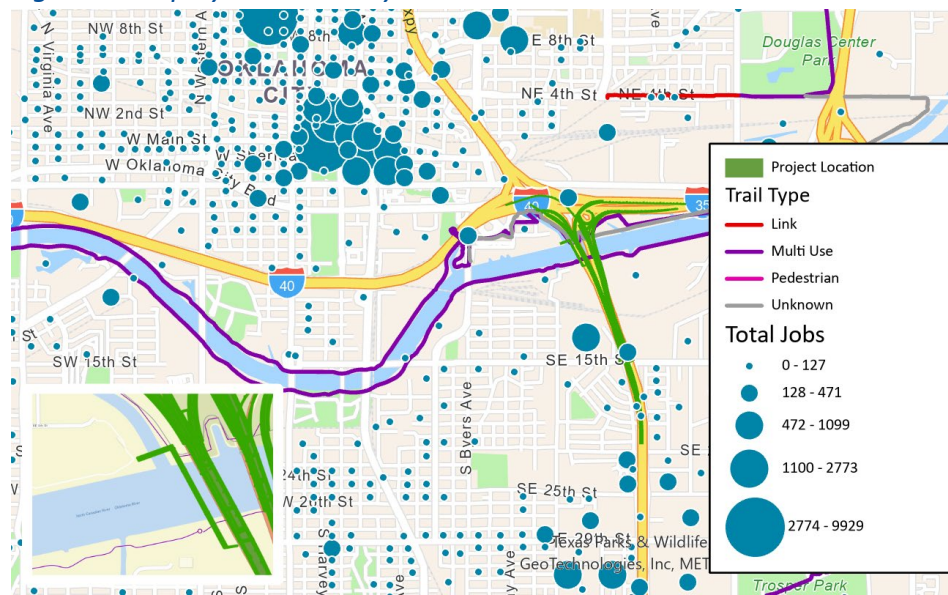
## Shift to Lower Carbon Modes

The new multimodal bridge portion of the Project will encourage and allow mode shift from driving to affordable options like walking and cycling; the improved capacity of the I-35 bridge may also encourage mode shift to transit by improving travel time and reliability of intercity buses. The **Quality of Life** section provides additional details.

The addition of a new, safe, and accessible bike and pedestrian connection across the Oklahoma River to downtown will allow residents and visitors to safely access more opportunities via lower or no emissions modes like walking or bicycling and reduce their annual VMT.<sup>2</sup> According to analysis by the Neighborhood Center for Technology, the Annual CO<sub>2</sub> Emissions from Auto Use Per Household for Census Tract 1053<sup>3</sup>, which includes the majority of the Project location, is 9 – 10.5, higher than the majority of the surrounding tracts. Households in the areas that will be connected by the new multimodal bridge currently drive more per year (as measured in vehicle miles traveled – VMT) than households in neighboring areas.

The multimodal bridge will connect the Oklahoma River trails on the south side of the river with the recreation amenities of the Boathouse District, as well as with the Bricktown River Walk Park. This park has walking and biking trails which lead to Oklahoma City's bustling downtown, passing by a light rail stop and the city's Amtrak station. This Project, therefore, provides increased affordable and accessible transportation choices for the disadvantaged communities in Capitol Hill, improving walkability and the accessibility of a growing area of Oklahoma City for pedestrians and bikers. As shown in **Figure 3**, the multimodal bridge provides a new pedestrian and bike connection to the employment centers in downtown Oklahoma City.

*Figure 3. Employment Density*



SOURCE: US CENSUS BUREAU, ONTHEMAP, 2020 TOTAL PRIVATE JOBS<sup>4</sup>

<sup>2</sup> <https://www.okc.gov/home/showpublisheddocument/18882/637299972915330000>

<sup>3</sup> <https://htaindex.cnt.org/compare-greenhouse-gas/>

<sup>4</sup> <https://onthemap.ces.census.gov/>

Oklahoma City’s transit agency route 024, also known as the Norman Express, crosses the existing I-35 bridges over the Oklahoma River. The Norman Express intercity bus provides service between Norman to downtown Oklahoma City, the Oklahoma State Capitol and surrounding offices, the OU Medical Center, and cultural attractions including the Oklahoma City National Memorial & Museum, the Oklahoma City Museum of Art, and the Civic Center Music Hall among others. The 2022 OKC Moves Bus Study identified that “Ridership and productivity on Route 024 may be improved by making the service faster...The route may also be improved by adding later evening service, and operating at more consistent, clockface service frequency.”<sup>5</sup> Improving congestion across the I-35 bridges may enable the Norman Express to operate more quickly and reliably and encourage more commuters between Norman and Oklahoma City to shift to public transit and reduce VMT.

### **Resiliency**

Due to its geology, rivers, and flood plains, ODOT has long recognized the vulnerability of its transportation assets to extreme weather and the risks it can present to the condition and performance of pavements and bridges; therefore, ODOT has integrated resiliency considerations into its life cycle planning and project programming. ODOT has developed well-regarded resiliency focused design guidelines for bridges and roadways in flood-prone areas to reduce potential damage from extreme weather events and minimize overall life cycle costs and is increasingly incorporating resiliency and redundancy considerations into its decision making.

Replacing the existing bridges with new infrastructure and modern materials would address concerns regarding the structural deficiency of the existing bridge and offer an opportunity to improve resiliency to hazards and disasters of all types (i.e., natural and human-made).

Scour, or the erosion of soil around a bridge pier, is also one of the main reasons for bridge collapse. The current I-35 bridges have five piers in the water (10 total) and the new I-35 NB and SB bridges, and the multimodal bridge will have three piers in the water which provide room for the rowing lanes. The new bridges will utilize three continuous spans with plate girder steel beams. The continuous spans will allow the longest span over the center of the river to have a less deep section than if simply supported spans were used.

Increasing the vertical clearance on the new I-35 bridges is not necessary since this section of the Oklahoma River is a dammed facility. This feature improves the resiliency of the multimodal bridge and the two I-35 bridges and will allow all the bridges to operate consistently despite the increased likelihood and frequency of extreme weather events.

### **Land Use**

The [planOKC Interactive Map](#) shows that the Project location is in a mix of Urban Medium Intensity and Urban High Intensity land use areas. Medium intensity urbanized areas are reflective of the historic urban core, which balances small-and medium-lot housing and commercial districts. High intensity areas apply to the area surrounding the central business district, where developments may likely have notably higher densities, scale, and mixture of

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<sup>5</sup> [https://www.okcmoves.org/files/ugd/b59736\\_25bf184f61804995b948d08b970cb45f.pdf](https://www.okcmoves.org/files/ugd/b59736_25bf184f61804995b948d08b970cb45f.pdf)

uses. The Project also aligns with numerous safety, streets, sidewalks and trails, health, parks and recreation, economic development, land use and urban design goals laid out in [planOKC](#).

The Project is adjacent to a Revitalize Retail Priority Area, which is identified in the [Oklahoma City Retail Plan](#) as an area needing policies geared toward strengthening existing retail uses through re-tenanting of vacant space, the elimination of retail space to “right size” the node or corridor, landscape and beautification efforts, façade programs, business coordination, and the potential introduction of new complementary land uses. The multimodal bridge will support greater active transportation connectivity and public and private investments in land use productivity and mixed-use development. The OKANA resort is a mixed-use development just one mile from the easternmost point of the Project location.

### **Impacts on Disadvantaged Communities**

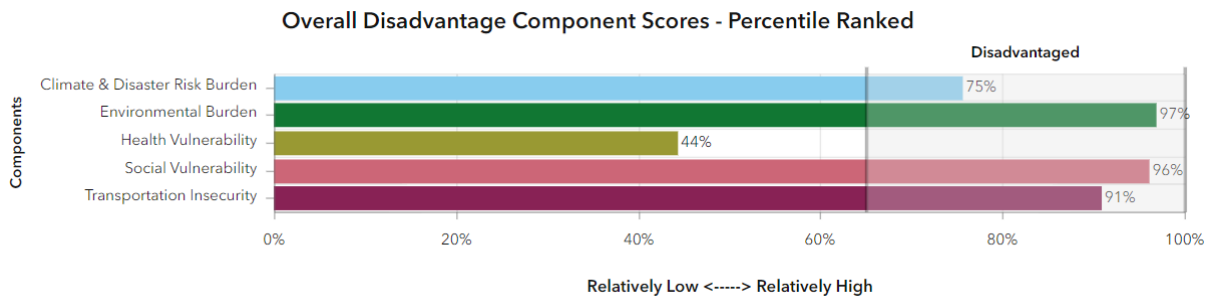
Census Tract 1053, which includes the majority of the Project, has been categorized as “Disadvantaged” using the most recent Justice40 methodology and as Historically Disadvantaged Community and an Area of Persistent Poverty based on the USDOT Grant mapping application. Over 50 percent of its population is Hispanic or Latino, and the share of people who have asthma is in the 94<sup>th</sup> percentile. The tract’s assessment for “low life expectancy” is in the 98<sup>th</sup> percentile, according to Justice40 data from the Climate and Economic Justice Screening Tool. The National Institutes of Health have determined that there is “consistent evidence that exposure to traffic-related air pollution...is associated with an increased risk of developing asthma.”<sup>6</sup> Reducing congestion at the Project location and encouraging mode shift to walking, biking, or transit as described above, may reduce residents’ exposure to potentially dangerous air pollution. Census Tract 1038 has approximately 1,300 residents is directly adjacent to Tract 1053 and does not qualify as “Disadvantaged” according to Justice40; however, residents in Tract 1053 are still in the 87<sup>th</sup> percentile for diesel particulate matter exposure and 84<sup>th</sup> in PM2.5.

The USDOT Equitable Transportation Community Explorer also indicates that the census tracts adjacent to and including the project location rank high for disadvantaged indices for transportation insecurity as well as environmental burden, as illustrated in **Figure 4**. The Project will both provide additional low-cost multimodal transportation options to improve transportation insecurity, as well as reduce air pollution due to congestion which may improve the area’s environmental burden.

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<sup>6</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7648850/>

Figure 4: Disadvantaged Component Scores



SOURCE: USDOT EQUITABLE TRANSPORTATION COMMUNITY (ETC) EXPLORER<sup>7</sup>

## Equity, Multimodal Options, and Quality of Life

Recognizing the importance of equity in its projects and in consultation with stakeholders in the Project area, ODOT has decided to build a multimodal bridge directly to the west of the southbound I-35 bridge. This bridge will connect disadvantaged communities south of the Oklahoma River with opportunities and amenities in the higher resourced Boathouse District and Bricktown north of the river, as well as more convenient access by active transportation to jobs and hospitals in Downtown Oklahoma. Currently, there is no bridge with pedestrian or bike access for a more than two-mile stretch of the river. The multimodal bridge will create a new, safe, and comfortable walking and bicycling connection across the Oklahoma River and in the historically disadvantaged Capitol Hill region in order to fill a notable gap in Oklahoma City’s existing and proposed bicycle network of on-road facilities, multimodal paths, and greenways.

### Equity

One of the primary purposes of the Project’s connection across the Oklahoma River is to remove barriers and reconnect communities, especially for non-motorized travelers from underserved communities. This project sits on the edge of three census tracts, connecting Census Tracts 1039 and 1053 in Capitol Hill on the south side of the Oklahoma River with Census Tract 1097 on the north side. Both Census Tracts 1039 and 1053 are largely residential and are designated as Justice40 disadvantaged tracts as defined by the Climate and Economic Justice Screening Tool and Areas of Persistent Poverty. Tract 1053 is also a Historically Disadvantaged Community. Tract 1097 is an Area of Persistent Poverty. The populations of both Tracts 1039 and 1053 are over 60% Hispanic/Latino, compared to a countywide average of 18% and a statewide average of 11%.<sup>8</sup> On the USDOT Equitable Transportation Community (ETC) Explorer, both Tracts 1039 and 1053 rank as disadvantaged for Climate and Disaster Risk Burden, Environmental Burden, and Social Vulnerability, while Tract 1039 ranks as disadvantaged for Transportation Insecurity, and Tract 1053 also ranks as disadvantaged for Health Vulnerability. Meanwhile, the Climate and Economic Justice Screening Tool identifies

<sup>7</sup> <https://experience.arcgis.com/experience/0920984aa80a4362b8778d779b090723/page/ETC-Explorer--State-Results/>

<sup>8</sup> U.S. Census Bureau (2017-2021). *Hispanic or Latino Origin by Race American Community Survey 5-year estimates*. Retrieved from <<https://censusreporter.org>>

Tract 1053 as disadvantaged in health, housing, and transportation, while Tract 1039 is disadvantaged in health, housing, and workforce.

In addition to mobility and accessibility benefits described here and in the **Climate Change, Resiliency, and the Environment** section, the Project may also improve public health by connecting this area of Oklahoma City to the entire Oklahoma City trails system which offers a network of 10 inter-connected trails that cover over 80 miles and can take users to almost every point in Oklahoma City.

### Quality of Life

As shown in **Figure 3**, above, the multimodal bridge provides a new pedestrian and bicycle connection to the employment centers in downtown Oklahoma City. The multimodal bridge will connect the Oklahoma River trails on the south side of the river with the recreation amenities of the Boathouse District, as well as with the Bricktown River Walk Park. This park has walking and biking trails which lead to Oklahoma City's bustling downtown, passing by a light rail stop and the city's Amtrak station. This Project, therefore, provides increased affordable and accessible transportation choices for the disadvantaged communities in Capitol Hill, improving walkability and the accessibility of a growing area of Oklahoma City for pedestrians and bicyclists.

The multimodal bridge will increase affordable and healthy transportation choices in the Project area and reduce transportation cost burdens by improving and expanding active transportation options. The multimodal bridge will potentially help reduce auto dependence and residents that do not own a vehicle in this underserved community. The Project will provide a new accessible active transportation connection between two brownfield grant redevelopment sites which now feature green space and trails on the banks of the Oklahoma River: the Riversport Rapids in Regatta Park and the First Americans Museum (FAM). The First Americans Museum is a one-of-a-kind center highlighting the trials and triumphs of the Indigenous People of North America. Its unique landscaping and architecture provide a place of cultural history and a sanctuary for learning and solitude. The Project will provide further access to free and accessible green space surrounding the First Americans Museum and upcoming OKANA development, the north and south Oklahoma River trails, as well as Regatta Park and the Bricktown River Walk Park on the north side of the Oklahoma River. The Bricktown River Walk Park provides green space and access to the Bricktown District, an entertainment and dining district reconstructed from an underused warehouse district. **Figure 1** in the **Project Description** shows the Project location and proximity to the surrounding amenities. The multimodal bridge will enable residents and visitors to access jobs, healthcare, shopping, parks, and events on the Oklahoma River.

### Multimodal Options and Accessible Design

In addition to improving multimodal options for pedestrians and bikers as discussed above, the Project will incorporate Universal Design features to ensure that any user will be able to use the multimodal bridge comfortably and conveniently, including those who use mobility devices such as wheelchairs, children, and the elderly. To connect the Project to the Oklahoma River trail system, ADA-compliant ramps will branch off the existing Oklahoma River trail to provide pedestrians and cyclists access to the multimodal bridge. Handrailing will be installed along the

extent of the paths under the bridges on both banks of the river to deter pedestrians from straying toward the I-35 traffic. Lighting and other aesthetic enhancements will be provided on the multimodal bridge and along the trail pathway to enhance the user experience and provide additional safety. The Project will have limited right-of-way acquisition, but there will be no displacements.

### **Public Engagement**

An integral part of the Project's development has been the consistent continued discussion with a broad base of stakeholders to arrive at a "consensus built" bridge solution for the Oklahoma River crossing that not only understands and meets the needs of each stakeholder and ensures equity considerations, but also meshes with the financial abilities of the Project sponsors. This public engagement process followed the features of meaningful public involvement identified in U.S. DOT's *Promising Practices for Meaningful Public Involvement in Transportation Decision-making*. While there was an initial desire to have an iconic structure with no bridge piers in the Oklahoma River, after meaningful discussion, the consensus resulted in the recommendation of the steel girder span structure with three piers in the Oklahoma River with a multimodal bridge connecting the Oklahoma River trails on each side of the river.

The Project is unique in that it is taking place in a new frontier of urban development with a unique meshing of cultural, commercial, and residential development with a broad partnership base. An Interchange Capacity Study, Long Span Bridge Study, and stakeholder involvement meetings have brought together a strong partnership between the State of Oklahoma (ODOT), Tribal Community (Chickasaw Nation), local municipalities and agencies (City of OKC, Riversport Oklahoma River Authority), community-based groups (ACOG, First American Museum, and OKC Chamber) and local resident groups (Capitol Hill Community), which is a historically underserved and underrepresented community.

Due to the proximity of the new multimodal bridge to the Oklahoma River and other features, including but not limited to trails, parks, lakes, the First Americans Museum, and the Riversport Adventures in the Boathouse District, stakeholder involvement and feedback was essential during preliminary trail design. Thus, an integral part of the project development process has been the consistent continued discussion with key stakeholders to arrive at a "consensus built" multimodal bridge solution for the Oklahoma River crossing that not only meets the needs of each stakeholder, but also meshes with the financial abilities of the project sponsors.

The public involvement process will continue to partner with Capitol Hill residents to ensure the equity considerations are integrated into the Project design. The public involvement process will continue to engage diverse input from community-based organizations, Historically Disadvantaged Communities, and Areas of Persistent Poverty.

### **Planning and Workforce**

ODOT has instituted equity-focused policies related to project procurement and construction to ensure equity in the overall project delivery and implementation. The mission of ODOT's Contract Compliance Division is to ensure equal employment opportunity within ODOT, to level the playing field for Disadvantaged Business Enterprises (DBEs) by providing full and meaningful participation opportunities in ODOT's federally funded highway projects and to plan, implement and provide guidance to prevent discrimination in federal aid programs and

activities. ODOT Contract Compliance Division (CCD) implements and oversees the ODOT DBE Program and the Unified Certification Program for USDOT funded recipients, assuring compliance with 49 CFR Part 26. Both consultants and construction contractors are required to meet the stated DBE commitments. ODOT CCD conducts reviews of contractors and subcontractors at any time to ensure compliance. In addition, ODOT requires the verbatim attachment of Appendices A & E of the Title VI Program Manual to all federally assisted contracts. The appendices specifically and directly address the non-discrimination efforts required.

## **Innovation**

### **Technology Innovations**

**ITS Deployment During Construction** – During construction, ODOT will use Intelligent Transportation Systems (ITS) to ensure work zones on I-35 are safe and to minimize travel delays for drivers. Radar, cameras, Dynamic Message Signs (DMS), and probe data will be used together to monitor travel speeds and congestion and support incident management. Once construction is complete, these ITS assets will remain in place and will be used by ODOT to monitor traffic and provide travel information to the public.

**3D Digital Project Plans** – ODOT commits to providing 3D digital project plans as part of the contracting process. This technology will allow contractors to use state-of-the-art GPS-controlled automated equipment in the construction process, which reduces the risk of human error in establishing grades and elevations while improving efficiency in earthmoving during the construction process and reducing the overall cost of construction.

**Accelerated Bridge Construction** – ODOT will use Accelerated Bridge Construct (ABC) to improve site constructability, total project delivery time, and work-zone safety for the public, as well as reduce traffic impacts, onsite construction time, and weather-related delays. ABC uses innovative planning, design, materials, and construction methods safely and cost-effectively to reduce the onsite construction time that occurs when building new bridges or replacing and rehabilitating existing bridges. The Project’s construction method will utilize barges next to the site to build the superstructure. Once complete, it will be floated and then lowered into place by a series of cranes. This will minimize the interruption of traffic by allowing the existing traffic to stay on the existing bridges during the construction of the superstructure.

**Aesthetic Improvements** – Aesthetic improvements to the bridges will be incorporated to enhance the cultural and innovative development that is occurring directly adjacent to the I-35 corridor. These aesthetic improvements could reflect the local cultures including Native American and Capitol Hill Hispanic District and nearby amenities such as Riversport in the Boathouse District. Improvements will be added by utilizing form liners, reveals, stains, lighting, and other treatments.

**Viewing Platform** – A viewing platform on the multimodal bridge will provide spectator seating and other amenities to enhance the boat racing experience.

### **Project Delivery Innovations**

**“No Excuses Bonus”** – For construction, ODOT will incentivize contractors to achieve early delivery of the whole project and minimize traffic closures by deploying no excuses bonuses,



including a substantial completion incentive valued at 5 to 10 percent of the contract and smaller incentives for internal milestones tied to key project elements.

### **Financing Innovations**

**Increased Revenue** – Bills passed by the Oklahoma State Legislature in 2018 increase state revenue to ODOT by \$194.0 million per year, generated from the ownership or operation of a motor vehicle, and reduce transfers of general-purpose state revenue to ODOT by the same amount. Increased state revenue improves ODOT’s ability to meet the needs of the Project.

**Funding Partnerships** – ODOT will utilize multiple funding partners to unite the cultural, ethnic, and economic development districts that are accessed by using the I-35 corridor. Project partners such as ACOG, City of Oklahoma City, Chickasaw Nation, and WATCO railroad all have a history of financial partnership on large transportation projects in Oklahoma.