The City of
OKLAHOMA CITY

MPDG-Rural

Urban-Rural Community Connections
Outcome Criteria Narrative

Outcome Criteria Narrative

Safety

Project Safety Benefits
Crash Reduction Value 2025-2040 **$2,202,760.22**

A safety analysis was conducted for this project and is included as an appendix with this application. The analysis makes use of the National Highway Transportation Safety Administration's Fatality Analysis Reporting System (FARS) database, regional and state traffic counts, local pavement condition indices, and vehicle miles traveled data.

The Benefit-Cost Analysis estimates the Urban-Rural Community Connections project would, over a 15-year period, avoid 2 fatal crashes, 10 serious injury crashes, and 21 property damage only crashes. These safety benefits are projected to occur as the proposed improvements reduce corridor travel delay by an annual average of 27,000 hours for personal travel, 17,000 hours for business travel, and 23,000 hours of commercial travel through 2039. The safety analysis identified two **known, documented safety problems** on the project corridor: (1) fatal crashes and (2) poor road pavement condition.

First, four fatal crashes have occurred on the project corridor dating back to 2014, resulting in four deaths during just three years. While the FARS database reports reflect two were due to driver behavior, e.g. "distracted driver" or high blood-alcohol content, three of the fatalities on the corridor include roadway departures and two were two-vehicle collisions, one in an intersection and one a head-on collision across lanes.

Table 1, Fatal Crashes and Proposed Countermeasures

Year	*Corridor Location*	*Countermeasures*	*Crash Factors*
2018	NE 63rd & Midwest Blvd.	RSS, SCI	Large truck; older driver; angle collision
2015	NE 63rd between Midwest Blvd. – Douglas Blvd.	RSS, L	Roadway departure; head-on collision; nighttime conditions
2015	NE 63rd between Midwest Blvd. – Douglas Blvd.	RSS, L	Roadway departure; speeding; rollover; positive blood-alcohol content testing; nighttime conditions
2014	Jones-Spencer Road between N. Post - Westminster	RSS	Roadway departure; distracted driver

Source: NHTSA FARS, FHWA Proven Safety Countermeasures

Based on the FHWA proven safety countermeasures, appropriate interventions based on the FARS data include:

- Longitudinal Rumble Strips and Stripes on Two-Lane Roads (RSS): Center line rumble strips are estimated to reduce head-on fatal and injury crashes by anywhere from 44% to 64% and shoulder rumble strips a similar reduction between 13% and 51%, both specific to two-lane rural roads such as the project corridor. Inclusion of center line rumble strips should occur given both the head-on and roadway departure crashes that have occurred.

- Lighting (L): Rural highways see crash reduction of up to 28% with the addition of nighttime lighting and 33% to 38% crash reduction at rural intersections. The project corridor is wholly unlit and half of the fatal crashes occurred during nighttime. While the planning, purchase, and installation of streetlighting to the project corridor is a significant undertaking predicated upon area land use and traffic counts, Oklahoma City has explored the deployment of solar-powered LED streetlights along recreational trails

throughout the city as a lower-cost, lower-impact method of providing illumination to areas that are underdeveloped or isolated.

- Systemic Application of Multiple Low-Cost Countermeasures at Stop-Controlled Intersections (SCI): Described as "a package of multiple low-cost countermeasures, including enhanced signing and pavement markings, at a large number of stop-controlled intersections within a jurisdiction"; the project corridor includes a total of 10 intersections which typically include some of the countermeasures, e.g. properly placed stop bars, removal of obstructions that limit sight distance. Among these, too, are T-intersections without the stop approach countermeasures such as double arrow warning signs at the stem or doubled-up, oversized stop signage.

Second, poor road pavement condition profoundly affects safety. For example, peer-reviewed research published in a 2015 edition of the *Journal of Transportation Engineering*, "Effects of Pavement Surface Conditions on Traffic Crash Severity," found "poor pavement condition increases the severity of multiple-vehicle crashes on all roads," and research published in a 2013 edition of *Accident Analysis & Prevention* titled "Impact of Pavement Conditions on Crash Severity" found "poor pavement condition scores and ratings were associated with proportionally more severe crashes."

Currently, the Pavement Condition Index of the proposed Urban-Rural Community Connections corridor is a 43 on a 0-to-100 scale, falling in the "poor" category; however, there are segments of the corridor with far worse PCI:

Table 2, Lowest Pavement Condition Index Scores on Project Corridor

Segment	*PCI*	*PCI Category*
Spencer-Jones Road, Wilshire to N. Westminster Road	6	Very Poor
Hogback Road, N. Choctaw Road to NE 122nd Street	17	Very Poor
Spencer-Jones Road, N. Westminster Road to Highland Avenue	37	Poor
Spencer-Jones Road, N. Douglas Boulevard to NE 63rd Street	38	Poor

The 2014 fatal crash on Jones-Spencer Road between N. Post Road and N. Westminster Avenue occurred on the segment of Spencer-Jones Road with a current PCI of 38. Returning the corridor's asphalt pavement to a condition of good repair will increase safety and should increase the corridor's average PCI back to 100.

Climate Change, Resiliency, and the Environment

Project Emissions Benefits
Carbon Dioxide Emissions Reduction 2025-2040 **1,794.59 tons**

While safety improvements are a primary motivator of the Urban-Rural Community Connections project, it will confer significant climate change benefits. The project is **expected to reduce transportation-related emissions**; **increase use of/access to lower-carbon travel modes**; **improve public health**; **improve the resilience of at-risk infrastructure**; **consider needed upgrades consistent with the Federal Flood Risk Management Standard**; and **prevent stormwater runoff that would be a detriment to aquatic species and ecosystems.**

The Benefit-Cost Analysis for the Urban-Rural Community Connections project determined it is **expected to reduce transportation-related emissions** by "roughly 1,800 metric tons of CO_2 through reduced travel distances from urbanized to rural area in 2040," with 1,800 metric tons of CO_2 per EPA's Greenhouse Gas Equivalencies Calculator the equivalent of about 4.6 million miles driven by an average gasoline-powered passenger vehicle. This reduction of 1,794 metric tons was monetized at a cumulative value of $1,027,521, predominately through fewer diesel emissions from commercial vehicles (estimated to be about 58% of emissions).

Furthermore, a study published by the Concrete Sustainability Hub at MIT in 2013, "Pavement Roughness and Fuel Consumption," made use of the Federal Highway Administration's Long Term Pavement Performance (LTPP) data and found "roughness alone contributed to the consumption of an additional 30,000 gallons per mile for the representative road section over the study period … [t]his equates to the cumulative release of 300 tons of CO_2 per mile of pavement." Data from the Environmental Protection Agency's most recent National Emissions Inventory (NEI), 2017, indicates Oklahoma County's on-road, non-diesel light duty vehicle CO_2 emissions were about 3.6 million tons annually circa 2017; and Oklahoma County's on-road, non-diesel light duty vehicle CO_2 emissions are the 48th largest of all 3,223 counties nationwide circa 2017; in the 2014 NEI, Oklahoma County was ranked 47th but the emitted CO_2 tonnage of about 3.7 million was slightly greater than in 2017.

In "Quantifying greenhouse gas emission of asphalt pavement preservation at construction and use stages using life-cycle assessment," published in a 2020 edition of the peer-reviewed journal *International Journal of Sustainable Transportation*, researchers determined that "[p]avement preservation brings environmental benefit in reduction of CO_2 emission due to the improvement of pavement smoothness despite the emission generated at construction stage. Thin overlay produces the highest life-cycle reduction in CO_2 emission due to the significant IRI jump after treatment; while crack seal has the lowest reduction of CO_2 emission" (page 32).

Smoothness of the road surface is often, per FHWA, "considered the most important surface characteristic" as "pavement surface affects vehicle fuel consumption … vehicle life, and freight damage costs." As the aforementioned MIT Concrete Sustainability Hub stated in a 2013 report:

> The impact of traffic goes beyond simply the amount of cars traveling on a road – the type of traffic also influences pavement deterioration. The fact is, heavy vehicles, such as trucks and buses, are harder on roads than cars. For example, a fully loaded tractor-trailer is roughly 20 times heavier than a passenger car, but its impact on the roadway is disproportionately larger. A 1979 study by the General Accounting Office asserted that the pavement damage of one truck is equivalent to 9,600 cars (U.S. Comptroller General 1979). The level of damage depends on each vehicle's weight. With AASHTO's prediction that the volume of freight carried by trucks will increase by 62% by 2020 (2003), the impact of truck traffic on pavement deterioration will likely grow in significance.

Importantly, returning the project corridor pavement to a state of good repair will also enhance the efficiency of vehicles' tailpipe emissions for ozone precursors: oxides of nitrogen (NOx) and volatile organic compounds (VOCs). Achieved reductions of these precursors will **improve**

public health as continued vehicle emissions combined with increasing annual temperatures pose a threat to Oklahoma City and the Oklahoma City metro of exceeding the National Ambient Air Quality eight-hour Standard for ozone. In 2022, the Association of Central Oklahoma Governments (ACOG), the Oklahoma City metropolitan statistical area's metropolitan planning organization, published the Cost of Nonattainment Study for the Oklahoma City Area in an effort to quantify the potential economic impact of the U.S. EPA designating the region in nonattainment. Impacts were projected from 2022 to 2050 in a range between $9.5 billion and $15 billion, including significant costs associated with transportation conformity and Nonattainment New Source Review. Methods to reduce transportation sector emissions – including additional EVSE (discussed later in this section), new fuel mixes, mandatory emissions testing and vehicle inspection, etc. – will see benefits based on any degree of air quality/emissions reduction due to the massive cost of nonattainment. As detailed on page 96 of adapt**okc**, Oklahoma City's sustainability plan:

> Inhalation of ground-level ozone can induce respiratory symptoms including coughing, irritation of the throat, shortness of breath, and pain, burning, or discomfort when taking deep breaths. Higher daily concentrations of ozone are associated with increased asthma attacks, hospital admissions, and daily mortality.
>
> The Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS) indicates Oklahoma's adult asthma rate as 10%, well above the U.S. median of 9.3% and the 16th highest adult asthma rate among all U.S. states. Oklahoma's 10% rate is a marked increase from the state's 2000 rate of 6.3%. Most Oklahomans with asthma experience persistent severity, meaning 68.3% of adults in Oklahoma diagnosed with asthma are on long-term medication or have uncontrolled or poorly controlled asthma without medication.

To **improve the resilience of at-risk infrastructure,** the Urban-Rural Community Connections corridor includes bridges over bodies of water. Per the National Bridge Inventory, the project corridor includes four bridges, all on the Hogback Road portion of the corridor. Bridge inspections are conducted by the Oklahoma Department of Transportation on a two-year cycle; as part of this project, all inspection reports will be reviewed and, in the case of the Hogback Road bridge east of North Peebly Road that is in "poor" condition, consideration of a future Bridge Improvement Program application to get initial planning done for a rehabilitation or replacement:

Table 3, Urban-Rural Community Connections Project Corridor Bridges

	Bridge Location	***National Bridge Inventory***	***Last Inspection***	***Overall NBI Condition***
1	Hogback Road over I-44/Turner Turnpike	311050000000000	May 2020	Good
2	Hogback Road, E. Britton Road to Choctaw Bypass	265110000000000	November 2021	Fair
3	Hogback Road, east of N. Peebly Road	296710000000000	May 2021	Good
4	Hogback Road, east of N. Peebly Road	100720000000000	May 2021	Poor

Source: National Bridge Inventory

Additionally, there are portions of the project corridor that cross a floodplain and thus will require **consideration of needed upgrades consistent with the Federal Flood Risk Management Standard.** The project corridor intersects with floodplain in three locations:

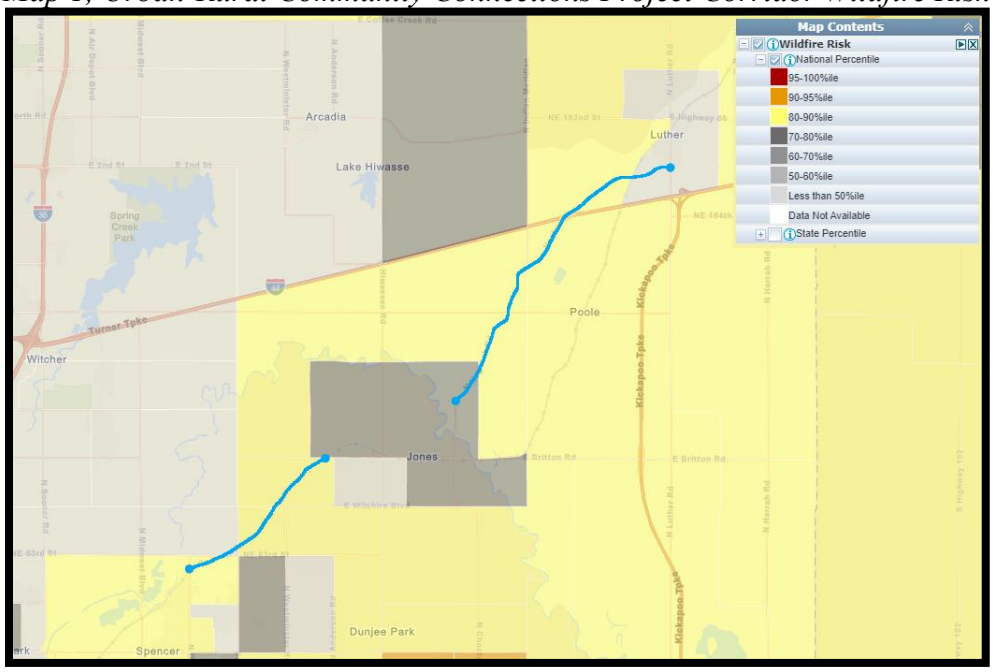
Table 4, Urban-Rural Community Connection Project Corridor FIRM Map Location

	Project Corridor Segment	***FEMA FIRM Map Number***
A	Spencer-Jones Road, east of N. Douglas Blvd.	#40109C0190H
B	Spencer-Jones Road, east of N. Westminster	#40109C0215H
C	Hogback Road, east of N. Peebly Road	#40109C0115H

The associated FIRM panels are included as an appendix with this application. The Urban-Rural Community Connections project will provide an opportunity to assess the condition of these roads from a flooding perspective to determine what, if any, intervention is necessary to gird infrastructure against future precipitation as well as heat, both of which are identified as likely climate impacts to Oklahoma City through 2065, albeit based on now-lapsed climate averages for 1981-2005 rather than the relatively new 1991-2020 averages – meaning those impacts are likely to be even more pronounced given the shifting baseline.

Heat and wildfire risk will also be addressed through this project. There are two Oklahoma City Fire Department (OCFD) stations near the proposed project corridor: the first, OCFD Station #27, sits at 6400 North Westminster Road, the northeast corner of NE 63rd Street and North Westminster Road, about 1.25 miles east on Northeast 63rd Street from the intersection of Northeast 63rd and Spencer Road. The second is OCFD Station #4 at 14200 Hogback Road, between East Memorial Road and Northeast 150th south of Interstate 44/the Turner Turnpike, put into service in the fall of 2010. In considering access improvements, the essential service of public safety is one factored into new developments and thus a significant factor in Oklahoma City land use and development regulation. With regard to heat, EJScreen reflects the area is largely in the 80th to 90th percentile for wildfire risk:

Map 1, Urban-Rural Community Connections Project Corridor Wildfire Risk



Source: EJScreen

The quality of the project corridor affects service delivery on the part of firefighters who need to access otherwise remote rural areas for both fire protection and emergency services. In addition

to directly serving residents, fire service availability, alongside sewer service and water service availability, are mapped as part of the City's comprehensive plan adopted in 2015, planokc, which was itself developed partly through a U.S. Department of Housing and Urban Development Sustainable Communities grant, a U.S. Department of Health and Human Services Community Transformation grant, and a U.S. Department of Commerce Economic Adjustment grant.

Table 5, Sewer, Water, and Fire Service Provision and Availability

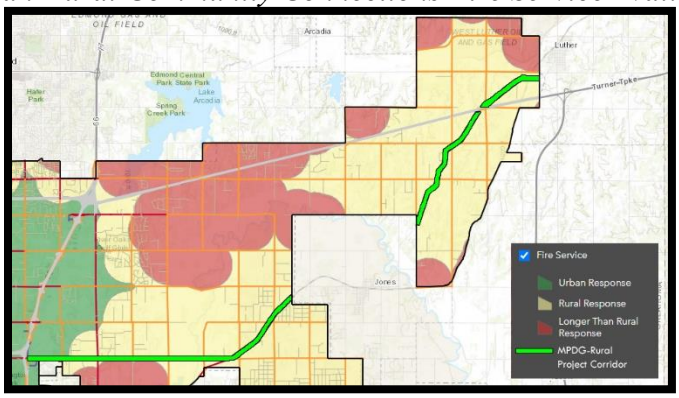
	Sewer Service Availability	***Water Service Availability***	***Fire Service Availability***
	Fully served areas (within 1/8th of a mile of a sewer line).	Currently served.	Fewer than 300 seconds of travel time (target urban service level) from a station in an urban LUTA (Land Use Typology Area).
	Within ½ mile of a downstream main; or within sewer sheds that are efficient to serve.	Close proximity to fully looped, well-connected portions of water network.	n/a
	Within open shed or partially open shed. Need for new capital investment to open entirely to new development.	Potential connectivity – likelihood of good pressure without substantial boosting.	Fewer than 390 seconds of travel time (target rural service level) from a station.
	Potential long-term connectivity to the system based on significant capital investment required to expand infrastructure.	Potential connectivity – need to determine if pressure will be sufficient or whether a booster station is required.	n/a
	Need for major investment on the scale of lift stations or a new wastewater treatment plant.	Not efficient to serve based on distance from water source and the number of areas of the city that have better connectivity and service potential.	Longer travel times than urban or rural targets.

Source: planokc, page 84

Service provision is a systematic approach to development that takes into account the efficiency of services based on existing infrastructure, new infrastructure, and demand: "Each city service can be provided more effectively and with lower cost if the major factors influencing service are given a leading position in determining how that service will be provided. For efficiency it is most desirable to use any extra capacity in these systems that we have now, and then grow them in a way that generates the least new cost."

Map 2 illustrates the proposed project corridor across service availability for fire. While this service availability map indicates urbanization, most of the proposed project corridor is still distant given sewer service availability and water availability, the existing transportation infrastructure is an important variable for rural fire response times The project corridor is an important spine for emergency services to reach more isolated rural areas at the periphery of a city that is already as large in land area as half the state of Rhode Island.

Map 2, Urban-Rural Community Connections Fire Service Availability Map



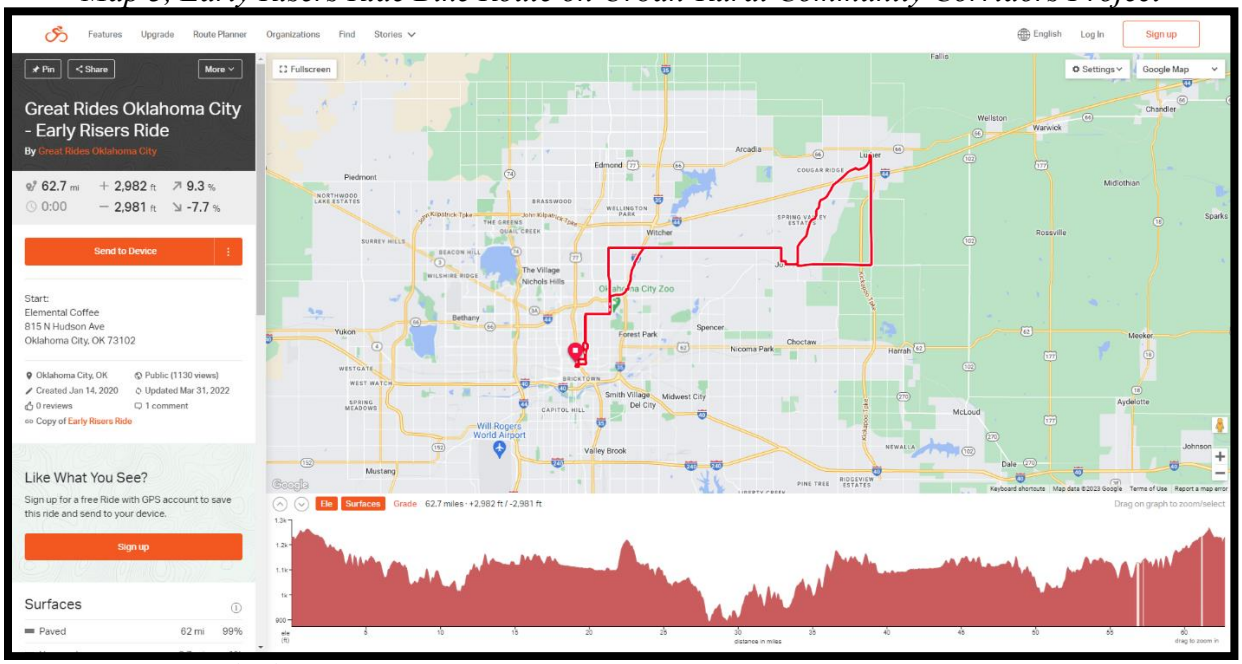
Source: planokc

The Urban-Rural Community Connections project will also **increase use of/access to lower-carbon travel modes**, particularly biking; while the project corridor does not presently include any bicycle facilities it is a course of significance for cyclists as part of the annual Redbud Classic, specifically a 50-mile "fondo" (the Italian word for "ride") where the "challenging hills leading to and from hilly Hogback Road" are a part of the competitive route for bicyclists.

Launched in the spring of 1983, the Redbud Classic has thousands of participants each year who engage in racing and biking to raise funds for Oklahoma non-profits and social service providers. Returning the project corridor to a PCI of 100 will return the corridor to a state of good repair, enhance safety, reduce emissions, and permit for smoother, safer bicycle rides.

As a bike route, much of the project corridor on Hogback Road (or Work Package 3) is used by cyclists as part of an "early risers ride" of 62.7 miles that begins in downtown Oklahoma City, connects to Jones, and takes Hogback Road up to the municipality of Luther where it turns around and directs back to downtown Oklahoma City. The route and details are shown below on Map 3 as well as on Trek's website:

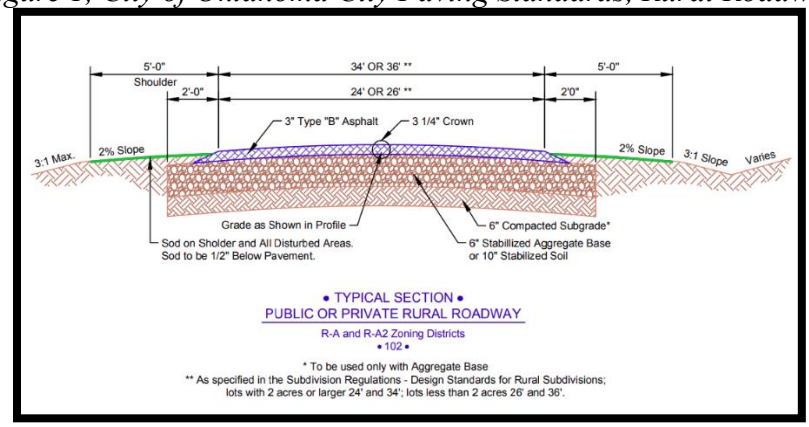
Map 3, Early Risers Ride Bike Route on Urban-Rural Community Corridors Project



Source: RideWithGPS.com

Another benefit of returning the project corridor to a state of good repair is that it will enhance the corridor's ability to **prevent stormwater runoff that would be a detriment to aquatic species and ecosystems**. City of Oklahoma City paving standards require roadways to have a slight grade from a midpoint crown to aid in moving water off the roadway into sodded shoulders, which the Environmental Protection Agency recognizes as a "general maintenance" best management practice: "established grass blankets on prepared soil provides a quick vegetative cover to lessen erosion. Proper watering and fertilizing are important to ensure the vitality of newly placed sod." Figure 1 is an excerpt from the City's paving standards:

Figure 1, City of Oklahoma City Paving Standards, Rural Roadway

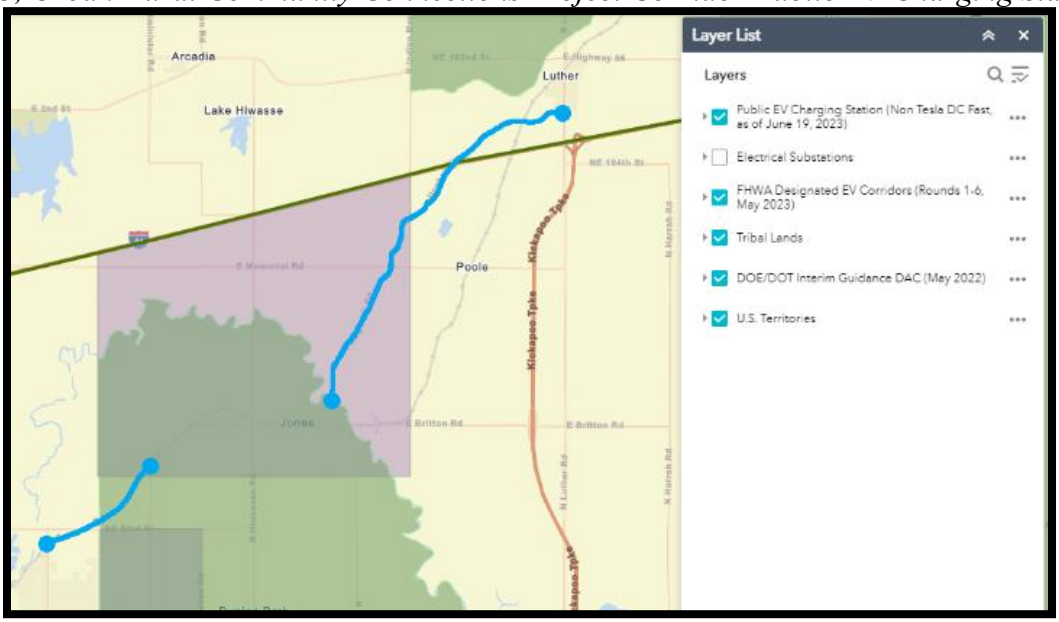


Source: City of Oklahoma City Standard Typical Sections, Asphalt Paving

In addition to this feature, the project will required the awarded consultant to draft a full Stormwater Pollution Prevention Plan to ensure the project land disturbance work is in compliance with and permitted under the City's stormwater management permit. The City's project permitting process for stormwater management is detailed on pages 24 through 32, including project site inspection materials.

Finally, public engagement has to include **incorporation of electrification or zero-emission vehicle infrastructure**; as illustrated in Map 3, there are currently no Federally-compliant electric vehicle supply equipment (EVSE) not simply on or near the project corridor, but the entire quadrant of Oklahoma City. While non-residential uses along the corridor are limited and the City would never commit to installation without conferring with area residents and businesses, public engagement will include viability of EVSE installation and public preference on location(s):

Map 3, Urban-Rural Community Connections Project Corridor Public EV Charging Stations

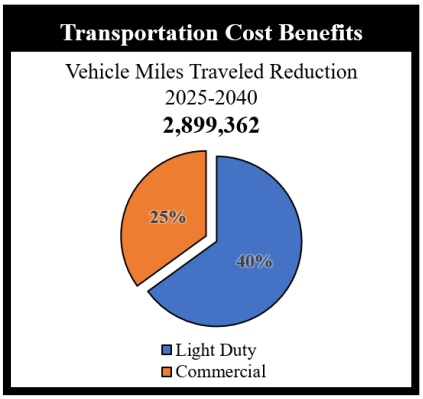


Source: Electric Vehicle Charging Justice40 Map

The primary candidate would be the small convenience store and retail cluster at the intersection of NE 63rd Street and Spencer-Jones Road as there are very few commercial uses along the corridor, but consideration could similarly be given to the two Oklahoma City Fire Department stations, too. Despite the Turner Turnpike/Interstate-44 interchange at Hogback Road, there are no commercial uses (e.g. rest stops, refueling, convenience stores, restaurants, hotels, etc.) around or near the Turnpike/Interstate, meaning there are limited opportunities for publicly-accessible locations.

Equity, Multimodal Options, and Quality of Life

A community equity analysis was conducted for the Urban-Rural Community Connections project and is included with this application. The analysis makes use of the U.S. Department of Transportation's ETC Explorer, per the NOFO, but also used the U.S. Environmental Protection Agency's EJScreen tool and FHWA's STEAP tool to supplement findings and expand the data provided on the project corridor. With this data, the proposed project demonstrates how it will **proactively address equity and barriers**; **improve quality of life in rural areas**; **benefit historically disadvantaged communities or areas of persistent poverty**; and **will engage diverse people and communities and demonstrate that equity considerations and community input and ownership are meaningfully integrated into planning, development, and implementation.**



The Urban-Rural Community Connections project will **proactively address equity and barriers to opportunity:** the Small, Local and Minority Business Utilization Program of the City of Oklahoma City's Public Works Department. This policy to **promote hiring of underrepresented populations** and **increase the utilization of DBEs** was first launched in 1993; the Small, Local and Minority Business Utilization program has contractors provide a plan for the utilization of local, small, minority, and disadvantaged subcontractors on public construction projects. The City maintains a publicly-available registry of minority-owned firms, women-owned firms, small businesses, and locally-owned firms (defined as within 40 miles of Oklahoma City), currently with over 200 firms. The successful bidder awarded a public improvement contract by the City of Oklahoma City must provide the City a small, local and minority subcontracting plan setting forth the firm's efforts and strategies to provide and extend opportunities for small and disadvantaged local business participation in the performance of subcontracts on City projects.

The firm's plan must be submitted to the City Engineer before a notice to proceed with work will be issued; the plan must set forth the firm's outreach efforts as well as internal efforts. The firm must create and maintain records demonstrating its efforts and the success of these efforts, and the firm is responsible for providing a report on the progress and success of its small, local and

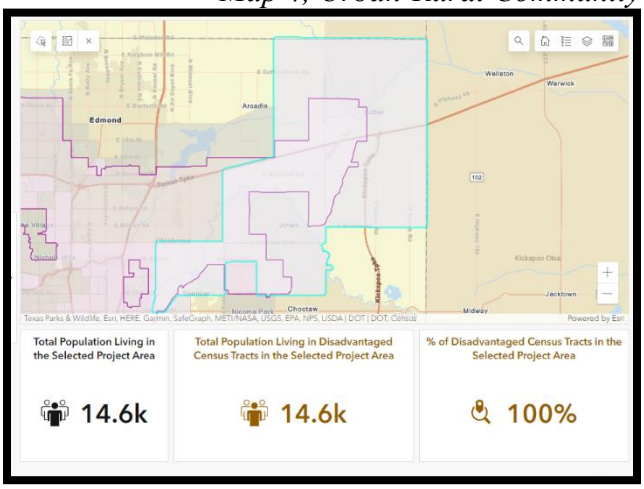
minority business subcontracting plan to the City Engineer as a condition precedent to final payment and release of retainage. The project will neither be deemed substantially complete nor be accepted for final payment until the firm submits a report on the progress and success of its small and disadvantaged local business subcontracting plan.

The Urban-Rural Community Connections project will also **improve quality of life in rural areas**, particularly by reducing transportation costs; improvements to the project corridor's pavement would reduce costly delays and, through 2040, reduce vehicle miles traveled by about 2.9 million, the equivalent of a little more than six round-trip journeys from the surface of the Earth to the Moon. These reductions reduce travel time by a long-term total of about 69,000 hours with the bulk of those reductions occurring among personal travel (27,537 hours) followed by commercial travel (24,095 hours) and business travel (17,211 hours). Resurfacing the project corridor reduces transportation costs; TRIP found 37% of Oklahoma City's major roads are in the "Substandard / Poor" IRI range and, based on these findings, the Highway Development and Management Model was used to estimate the average annual cost per Oklahoma City driver due to poor road conditions. Oklahoma City drivers were found to pay an annual average of $897 in additional vehicle operating and maintenance costs, the sixth highest of the 20 large urban areas in the U.S. with a population greater than 500,000. That $897 annual vehicle operating cost was surpassed only by Tulsa, Oklahoma; Los Angeles-Long Beach-Anaheim, California; Milwaukee, Wisconsin; San Jose, California; and San Francisco-Oakland, California.

The conclusions reached by TRIP's analysis are compounded by findings from the National Cooperative Highway Research Program (NCHRP). Through the assessment of models estimating the effects of pavement conditions on vehicle operating costs, NCHRP determined any increase in pavement roughness, irrespective of vehicle type or pavement type, is associated with operating costs in two ways: fuel consumption and vehicle repair and maintenance. Any 1-point change in the IRI scale affects fuel consumption by approximately 2% for passenger/light duty vehicles and 1-2% for heavy trucks; for vehicle repair and maintenance, any 5 IRI point change affects costs by 40% for passenger cars and 50% for heavy trucks.

These savings and reductions will **benefit historically disadvantaged communities or areas of persistent poverty**; the ETC Explorer, as illustrated below in Figure 3, identifies all four project area tracts as disadvantaged. Two of the four are designated with the same disadvantages: transportation, meaning "communities and places that spend more, and longer, to get where they need to go"; three of the four have high health vulnerability, meaning "adverse health outcomes, disability, as well as environmental exposures"; and environmental disadvantage, meaning "disproportionate pollution burden and inferior environmental quality." Enhanced corridor safety, reduced transportation sector emissions, and a better state of good repair are all means by which affects to the vulnerable will be reduced or eliminated.

Map 4, Urban-Rural Community Connections Project Corridor

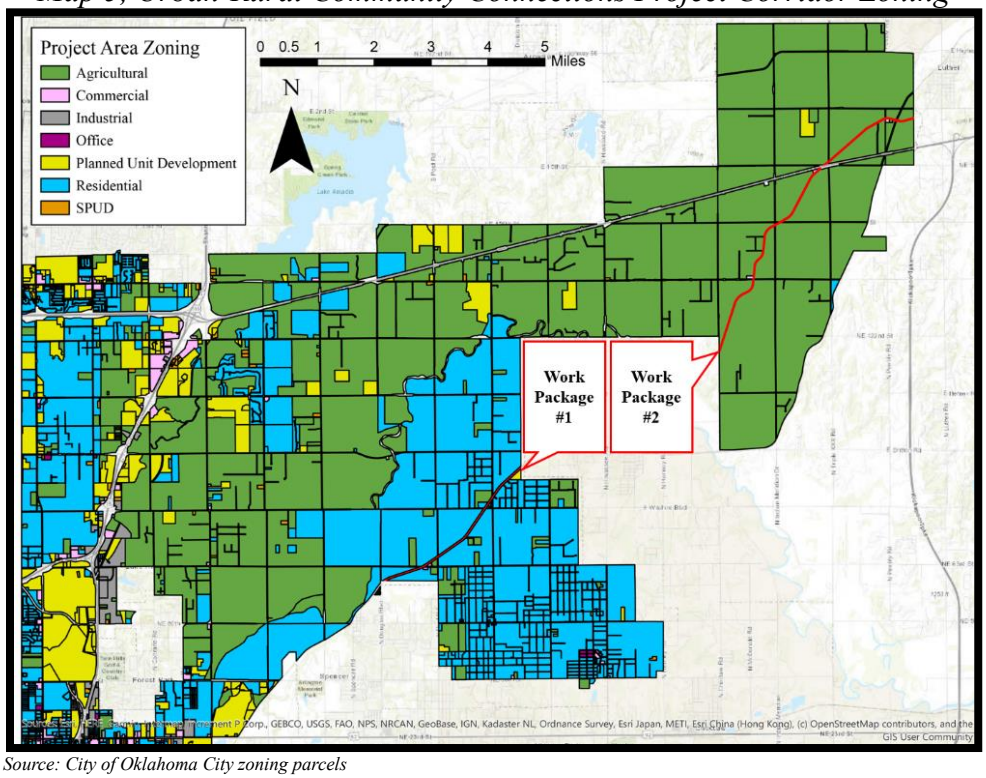


Tract	*Disadvantage Components*
40109108005	Social Vulnerability, Transportation Insecurity
40109108804	Health Vulnerability, Transportation Insecurity
40109108900	Health Vulnerability, Social Vulnerability
40109109202	Health Vulnerability, Social Vulnerability

Source: U.S. DOT ETC Explorer

Another way the Urban-Rural Community Connections project will **improve quality of life in a rural area** is by the improvement of infrastructure that serves predominately isolated and residential areas, as illustrated on land uses and zoning classes along the project corridor and the general project area in Map 5:

Map 5, Urban-Rural Community Connections Project Corridor Zoning



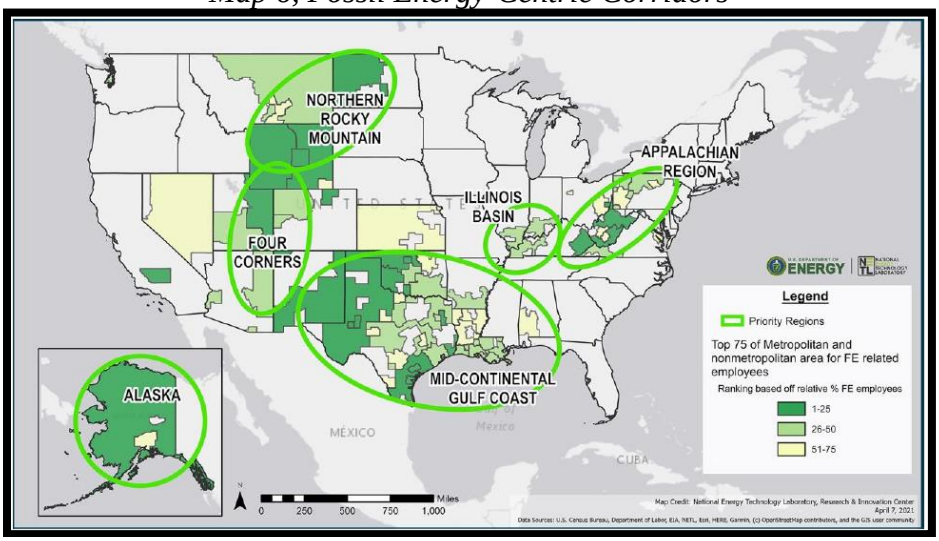
Source: City of Oklahoma City zoning parcels

Improving quality of life in rural areas is especially important given their history; in "Initial Report to the President on Empowering Workers Through Revitalizing Energy Communities," the April 2021 report published by the interagency working group established by section 218 of

Executive Order 14008, Oklahoma is among the states in the Mid-Continental Gulf Coast, a region that "houses two of the top 20 producing coal mines in the country; three of the top 20 coal power plants by power generation capacity; 62 refineries, more than 468,000 active oil and gas wells, representing 61% of active oil and gas wells in the United States; and five of the top 20 producing natural gas power plants."

Though the Oklahoma City metropolitan area was not amongst the 25 urgent geographical areas identified in the report, it was among the cohort ranked between 26 and 50 as a "fossil energy-centric" area "with a higher number of fossil energy (FE) activities and jobs" (page 6):

Map 6, Fossil Energy-Centric Corridors



At the eastern end of the projected project corridor, the rural town of Luther is home to the 1,230-megawatt Redbud Power Plant, a natural gas power plant partially owned by three entities: Oklahoma Gas & Electric (OG&E), an investor-owned utility that serves large portions of Oklahoma – including practically all of Oklahoma City – and a small portion of northwest Arkansas; the Grand River Dam Authority (GRDA), a state agency/public power utility that reaches into 75 of 77 Oklahoma counties and serves, directly or indirectly, almost 500,000 meters statewide; and Oklahoma Municipal Power Authority (OMPA), a not-for-profit created by state law that provides power to around 40 municipalities and public trusts across Oklahoma. The Redbud Power Plant is served by at least one significant natural gas pipeline – the ONEOK Gas Transportation, LLC natural gas pipeline – but the proposed project corridor intersects with others.

To that end, the proposed Urban-Rural Community Connections corridor crosses several privately-owned fossil energy pipelines: Midstream Partners Magellan pipeline, petroleum

product pipeline (Spencer Rd); Plains All American Pipeline, crude oil pipeline (Hogback Rd); Enogex Inc., natural gas pipeline (Hogback Rd & Memorial); and DCP Midstream, Enbridge, Phillips 66, Southern Hills natural gas liquids pipeline (Hogback Rd & N Indian Meridian). This eastern end of the proposed project corridor is connected to a series of oil fields, including the Luther Oil and Gas Field, the Coon Creek Gas and Oil Field, the South Garden Oil and Gas Field, the West Wellston Oil and Gas Field, and the North Captain Gas and Oil Field, and the corridor is occupied by a number of active oil and gas wells; within a mile of the full corridor, there are approximately 34 active oil and gas wells.

Finally, the Urban-Rural Community Connections project will **meaningfully engage and incorporate feedback from communities affected by the project, with effective public participation that is accessible to all persons regardless of race, color, national origin, disability, age, and sex.** There are unique challenges to public engagement in rural areas and, through the help of a community equity analysis, data and demographics have helped to inform methods of public engagement that would yield meaningful feedback better able to shape the project to better meet resident needs.

Public engagement for this project has to consider each of the following topics:

- **Trail Planning:** Multiple rural communities have identified Hogback Road through Oklahoma City as a desired trail. The Urban-Rural Community Connections project provides the opportunity to learn from residents their thoughts about the viability and appropriateness of such a trail. Long-term and with appropriate planning, the Hogback Road trail identified in the comprehensive plans of Harrah, Jones, and Luther (see page 6 of the community equity analysis).
- **Electric Vehicle Supply Equipment (EVSE):** While there is currently no zero emissions infrastructure on or near the project corridor, programs such as the National Electric Vehicle Infrastructure (NEVI) program or the Charging & Fueling Infrastructure discretionary grant program are means by which EVSE could be considered for a site or sites along the corridor contingent on public feedback and an amenable property owner who qualifies for publicly accessible infrastructure.
- **Driveways and Access:** The City of Oklahoma City frequently engages property owners on construction projects about reconstruction of a residential driveway approach when significant resurfacing or reconstruction occurs for resident satisfaction as well as safety. Along rural corridors, especially those with limited ingress and egress, coordination of access will be key in project phasing; typically, property owners can be afforded the opportunity for the City to pour or repave their approach to ensure physical continuity with the resurfaced or reconstructed road.

These specific topics as part of project public engagement will inform not only the Urban-Rural Community Connections project but provide direction and data for future project decisions in the area and on the corridor itself. Non-residential private sector development is slowed by the lack of water and sewer in the area, so focusing on opportunities to enhance the area is necessary via public funds given the relatively low economic base within the area.

For public engagement, a virtual community platform will be utilized to provide an online repository for project data, phasing, finances, and for contact with City staff. However, the

community equity analysis included the use of the FHWA tool, or STEAP, which includes the following data displayed in Table 6:

Table 6, FHWA STEAP Comparative Data

	Project Corridor	***Oklahoma City***	***Oklahoma County***	***Oklahoma***
Households without a Computer	11%	7%	8%	9%
Households without an Internet Connection	21%	12%	12%	15%

Source: Urban-Rural Community Connections Community Equity Analysis, pg. 22

The project corridor contains households that exceed the city-, county-, and statewide averages for households both without a computer and without an Internet connection. Obviously, this means a virtual community platform is not sufficient to reach and accommodate all project corridor residents. Therefore, the public engagement plan must include:

- **In-person engagement:** Hold a public meeting at a local community center or library; send out invitations to the meeting by mail, email, and social media; provide interpretation services for non-English speakers (EJScreen specifies all project corridor limited English speaking households speak Spanish); City project team staff available to answer questions; collection of feedback from residents on the potential trail, EVSE, construction access, and driveway reconstruction.
- **Create a dedicated website or social media page** for the project where City staff can updates on the project schedule, progress, and any upcoming events and provide a forum for residents to ask questions, share feedback, and get project updates.
- **Notification by mail:** Send out a letter to all residents who will be affected by the project including information on the project schedule, progress, and any upcoming events, and provision of contact information for residents to ask questions or share feedback.

Evaluation of the public engagement should occur before construction begins to adjust the scope as needed based on resident feedback. We will ensure public engagement is front-loaded so as to ensure feedback can shape the scope but maintain engagement throughout the project to ensure resident satisfaction and successful completion of the project in addition to meeting any of the needs of those along the project corridor.