



Prioritizing Crossings to Save Lives in Central Oklahoma

Application for Funding Under the Fiscal Year 2024 RCE Program

Applicant: Oklahoma Department of Transportation

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OKLAHOMA
Transportation

Project Narrative

1. COVER PAGE

Project Title	Prioritizing Crossings to Save Lives in Central Oklahoma
Applicant Name	Oklahoma Department of Transportation (ODOT)
FUNDING	
Amount of RCE Program Funding Requested under this NOFO	\$400,000
Amount of Proposed Non-Federal Match	\$100,000 (ODOT)
Does some or all of the proposed Non-Federal Match for the total project cost consist of Preliminary Engineering costs incurred before project selection (but after November 15, 2021)?	No
Other Sources of Federal funding, if applicable	No
Source(s) of Proposed Non-Federal Match	ODOT
If applicable, are set-aside funds requested? Is the Project eligible for a funding set-aside in Section B.1?	Yes, Planning
If "Yes," amount of set-aside funds requested:	\$400,000
Total Project Cost	\$500,000
PREVIOUS FEDERAL GRANTS	
Was a Federal Grant Application Previously Submitted for this Project?	No
LOCATION	
City(ies), County(ies), State(s) Where the Project is Located	Edmond, Norman, and Oklahoma City in Oklahoma State
Is the Project Located in a Rural Area or on Tribal Lands?	Yes
If the Project is located in a Rural Area or Tribal Land, is the Project Located in a county with 20 or fewer residents per square mile, according to the most recent decennial census?	No
Congressional District(s) Where the Project is Located	3, 4, and 5
APPLICATION TRACKS/PROJECT LIFECYCLE STAGES	
Application Track(s) proposed to be funded by this NOFO?	Track 1 – Project Planning
Lifecycle Stage(s) proposed to be funded by this NOFO	Project Planning
Current Lifecycle Stage and Anticipated completion of current Lifecycle Stage?	Systems Planning – March 2025
RAIL LINE INFORMATION	
Is the Project located on real property owned by someone other than the applicant?	Yes, BNSF Railway (BNSF)
Host Railroad/Infrastructure Owner(s) of Project Assets;	BNSF
Other impacted Railroad(s)	Amtrak, Stillwater Central Railroad (SLWC)

Tenant Railroad(s), if applicable	Amtrak, Stillwater Central Railroad (SLWC)
If applicable, is a 49 U.S.C. 22905-compliant Railroad Agreement executed or pending?	Pending
PLANNING CONSIDERATIONS	
Is the Project currently programmed in ANY medium or long-range planning document: <i>For example, State rail plan, or interregional intercity passenger rail systems planning study, State Freight Plan, TIP, STIP, MPO Long Range Transportation Plan, State Long Range Transportation?</i>	Yes - the North/South commuter rail project between Norman and Edmond (encompassing project for this planning study) is referenced in the Association of Central Oklahoma Government's Oklahoma City Area Regional Transportation Study and ODOT's Oklahoma State Rail Plan as a long-range passenger rail project.
Is the Project located on a potential corridor selected for the Corridor Identification and Development Program?	Yes, Heartland Flyer Extension

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2. PROJECT SUMMARY

The Oklahoma Department of Transportation (ODOT) proposes the Prioritizing Crossings to Save Lives in Central Oklahoma Project (Project) to complete a comprehensive master planning effort under Track 1-Project Planning, to evaluate 52 at-grade crossings on the Burlington Northern Santa Fe (BNSF) corridor through the urban areas serviced by the Regional Transportation Authority (RTA) of Central Oklahoma. Due to a history of incidents at the at-grade crossings within the RTA’s service area, this Project seeks to develop a prioritization matrix identifying grade separation, safety improvements, and closure projects that provide the greatest benefits to disadvantaged communities, safety, emissions, accessibility to emergency services, community connectivity, and good jobs. Public engagement will be a key part of the Project to identify community concerns and to present prioritization results.

ODOT is providing the non-federal match of \$100,000 for this priority project in Central Oklahoma and requesting \$400,000 in funding from the FY24 Railroad Crossing Elimination Grant.

3. GRANT FUNDS, SOURCES, USES OF PROJECT FUNDS

Funding for the evaluation of the 52 at-grade crossings will be sourced from a combination of the Railroad Crossing Elimination (RCE) Program funds and local funds from ODOT. The local match from ODOT will come from one of three state revolving funds. The RCE Program grant will provide the only federal funds for the Project. As shown in Table 3-1, the RCE Program will cover 80% of the total Project cost. The remaining 20% will be covered by local funds from ODOT, which meets the required financial match.

ODOT has not applied for nor has been awarded any other federal funds for the Project. Additionally, there are no in-kind contributions, such as donated services, materials, or equipment applicable to this project. All funding will be monetarily sourced from the RCE grant program and local ODOT funds.

There are no obligations or dependencies related to the timing of the expenditure of funds that could impact the Project. All funds, including those from the RCE Program and local sources, will be managed in accordance with the project timeline and the requirements outlined in the RCE Notice of Funding Opportunity (NOFO).

The Project budget is presented in Table 3-1, and all tasks will be completed under the lifecycle stage of Track 1 – Project Planning. The Project qualifies for the RCE Program's dedicated set-aside funding for planning activities as outlined in section B(1)(a) of the NOFO.

Table 3-1. Project Budget by Component

Task No.	Task Name/Project Component	Cost	Percentage of Total Cost	Source of Funds and Citation, as Applicable
1 – Track 1	Project Administration and Management	\$50,000	10%	
2 – Track 1	Master Plan Development	\$412,500	82.5%	
N/A	Contingency	\$37,500	7.5%	
Total Project Cost		\$500,000	100%	
Federal Funding Request under this Notice of Funding Opportunity (NOFO)		\$400,000	80%	RCE Set Aside
Non-Federal Funding/Match (State)		Cash: \$100,000	20%	ODOT State Revolving Funds
		In-Kind: \$0		

Task No.	Task Name/Project Component	Cost	Percentage of Total Cost	Source of Funds and Citation, as Applicable
Non-Federal Funding (Private Sector)		Cash: \$0	0%	
		In-Kind: \$0		
Non-Federal Funding (Local)		Cash: \$0	0%	
		In-Kind: \$0		
Other Committed Federal Funding (e.g., Federal Highway Administration, congressionally directed/earmark, other FRA grant program funds—including previous RCE grants, etc.) Note: If there are multiple sources of other federal funding, please break funding down by each source		\$0	0%	
Other Pending Federal Funding Requests		\$0	0%	
Amount (if any) of funding request eligible for set-aside funds as described in section B(1) (Planning, Rural/Tribal set-aside, or Highway-Rail Grade Crossing safety information and education programs)		\$500,000	100%	
Portion of Total Project Costs Spent in a Rural Area, if applicable		\$48,077	10%	
Does some or all the proposed Non-Federal Match for the total project cost consist of Preliminary Engineering costs incurred before project selection (but after November 15, 2021)?		\$0	0%	

Table 3-2: Proposed Project Funding Details

Lifecycle Stage	RCE		Other Federal			Total (\$)	
	Federal	Non-Federal	Federal	Non-Federal		Cost	Percent of Total Project Cost
		State Match (ODOT)		Source 1	Source 2		
Planning	\$400,000	\$100,000	\$0	\$0	\$0	\$500,000	100%
Totals	\$400,000	\$100,000	\$0	\$0	\$0	\$500,000	100%

4. APPLICANT ELIGIBILITY CRITERIA

ODOT, a state agency, is the Project sponsor. According to *United States Code* (U.S.C) Title 49, Section 22909(c) and Section 1.d. of the RCE Program NOFO, a political subdivision of a state is an eligible recipient. ODOT maintains public infrastructure throughout the State of Oklahoma including highways and state-owned railroads.

5. PROJECT ELIGIBILITY CRITERIA

The Project is eligible under the following section in the RCE Program NOFO:

C(3)(a)(vi). “(6) The planning, environmental review, and design of an eligible project described in paragraphs (1) through (5).” The Project is a master planning project involving evaluation, community outreach, and development of alternatives that will lead to grade separation, closure, or safety improvement projects for existing at-grade crossings across the RTA service region.

6. DETAILED PROJECT DESCRIPTION

6.1 Challenges the Project Will Address

The cities of Edmond, Norman, and Oklahoma City were primarily developed around the Santa Fe Railroad in the late 1800s and early 1900s. Towns along the railroad corridor experienced staggering growth, with section houses built nearly every 3 miles along the railroad tracks¹.

While the railroad helped to spur growth in Oklahoma, it also created an east-west barrier across communities. Pedestrians must travel significant distances to cross the tracks at controlled intersections to cross safely. Furthermore, approximately 90% of the railroad tracks in Oklahoma City lack physical barriers such as fencing to prevent trespassing. This has led to unsafe crossings that result in serious injuries, such as a University of Central Oklahoma football player losing his foot. Frequent stops by freight trains also pose a safety risk, as pedestrians feel a false sense of safety crossing the tracks, when in reality, the trains could start moving at any time.

Figure 6-1. North-West Britton Road- North Western Avenue (Crossing ID 012080E)



Today, the Central Oklahoma region continues to grow rapidly. With advancements in new technology and innovations, the mobility landscape is evolving with increasing demand for alternative transportation options to key activity centers such as employment hubs, educational institutions, healthcare, and commercial centers. The RTA, in partnership with BNSF and the cities of Edmond, Oklahoma City, and Norman, seeks to use 37 miles of the existing BNSF freight network through Oklahoma City for the proposed North/South commuter rail service.

Behind trespassing, at-grade crossings pose the second greatest safety risk for the national railroad system. Oklahomans are disproportionately at risk of collisions across at-grade rail crossings. Oklahoma is the 28th most populous state yet was ranked 17th for the most highway-rail grade crossing collisions based on the 2023 Federal Railroad Administration (FRA) analysis of U.S. grade-crossing trends.

Specifically, there are several crossings within the Norman to Edmond rail corridor, that have some of the highest Grade Crossing Accident Prediction System (GXAPs) scores in the state. For instance, in 2023, there were two incidents at the crossing at E Boyd Street (Crossing ID 012206J), one incident at the crossing at West 15th Street (Crossing ID 012071F), and one incident at the crossing at Lexington Street (Crossing ID 012197M). All four incidents resulted in significant property damage. Additionally, BNSF records reveal significant service interruptions and a history of 27 vehicle-train collisions at the North-West Britton Road- North Western Avenue (Crossing ID 012080E) crossing, with the last incident occurring on February 14, 2016. The recorded service interruptions were due to vehicles stopping, stalling, or being abandoned on the crossing, resulting in 1.5-mile-long trains having to emergency brake.

ODOT considers roadway safety for all users a primary objective of the agency. The vision of [ODOT's Strategic Highway Safety Plan](#) is to provide and promote the safest roadway transportation system for all travelers on the path to zero deaths and zero serious injuries. ODOT's Highway-Rail Grade Crossing State Action Plan identifies short-term and long-term strategies to improve safety by reducing or eliminating incidents at highway-rail grade crossings.

ODOT is investing \$100 million into 300 railroad crossings across the state. The projects will improve signage and activate warning systems such as flashing lights, gates that lower to help prevent traffic

¹ [Early Railroads of Southeast Oklahoma - Owlcation](#)

from entering a crossing, and audible alert devices. However, additional funding is needed to prioritize investments such as grade separation, safety improvements, and crossing closure and removal projects and to complete a comprehensive master planning effort focused on at-grade railroad crossings across RTA communities. Just in the last year, the State of Oklahoma had more than 3,475 public at-grade crossings that experienced 41 collisions with 4 deaths and 17 injuries.

6.2 Current and Proposed Railroad Operations in the Project Area

The BNSF railway company owns and operates the railroads within the Project area. BNSF is a committed partner and has provided a letter of support for the Project.

The Project crossings are situated within the BNSF Red Rock Subdivision between Edmond and Norman. The BNSF Red Rock Subdivision is about 260 miles in length and is part of the Strategic Rail Corridor Network (STRACNET) that plays an integral role in moving freight to and from Oklahoma. The BNSF railroad corridor serves the Class 1 railroad and is an important link for transporting goods originating in the Midwest and arriving from Texas. The Red Rock Subdivision through the Project area is predominantly a single-track rail line with various passing sidings. RTA proposes double tracking this corridor between Edmond and Norman for BNSF to maintain operational fluidity with RTA commuter trains, meaning single-track at-grade crossings will become multi-track at-grade crossings.

Figure 6-2. Oklahoma Freight Flows by Direction (2017)



Due to Oklahoma’s central location, the Class 1 railroads also transport a significant amount of rail freight traffic through the state that has neither an origin nor destination within Oklahoma (Figure 6-2). A majority of this traffic is either coal from mines in northeast Wyoming to electric utilities in Texas and other destinations in the southeast or various containerized goods moving between California ports and the Midwest.

The 2024 average daily train count at the subject grade crossings is 26 total trains, including the two Amtrak (Heartland Flyer) passenger trains that make up the daily roundtrip service. With the addition of the planned RTA service, the total number of trains is expected to rise to 48 along with an increase in train speeds from 60 to 90 miles per hour. Anticipated freight growth in the corridor will add six additional daily freight trains by 2032, bringing the total to 56 trains.

The Annual Average Daily Traffic (AADT) varies significantly at crossings, ranging from 50 to 17,000 vehicles (Figure 6-3). Eleven crossings in Oklahoma City and Norman have AADT of more than 10,000, underscoring the crucial need for mobility investments at these crossings.

Amtrak’s Heartland Flyer Service

The Heartland Flyer, operated by Amtrak, is the sole intercity passenger rail service in Oklahoma. It runs daily on BNSF-owned tracks between Oklahoma City, Oklahoma, and Fort Worth, Texas, with stops in Norman, Purcell, Pauls Valley, and Ardmore. The southbound train departs Oklahoma City at 8:25 a.m., while the northbound train leaves Fort Worth in the evening, arriving in Oklahoma City at 9:23 p.m. In 2023, the service saw more than 63,000 passengers, with an average trip distance of 182 miles. Although Amtrak manages the Heartland Flyer, its funding is a collaborative effort between Oklahoma and Texas.

Future plans include extending the train’s northern terminus from Oklahoma City to Newton, Kansas, and increasing service frequency along the original route. Amtrak aims to enhance the Heartland Flyer by boosting service between Fort Worth and Oklahoma City, introducing service to Wichita, and improving connectivity via Newton and the Southwest Chief route. These upgrades will strengthen rail connections between smaller cities and major hubs like Wichita, Oklahoma City, and Fort Worth,

thus enhancing mobility and providing residents with better access to education and employment opportunities.

Figure 6-3. AADT Figures by Crossing



6.3 Primary Expected Outcomes

Table 6-1 identifies the primary expected outcomes following the implementation of infrastructure improvements identified in the master plan to eliminate rail crossings.

Table 6-1. Summary of Infrastructure Improvements and Associated Benefits

Type of Impact	Associated Benefits
Travel Time Savings	RCE will ensure road traffic will no longer be forced to stop, avoiding an average idling time of 5 minutes.
Safety	RCE will eliminate conflict between road users and trains, preventing collisions between trains and other road users such as pedestrians and cars.
Reduced Vehicular Operating Costs	As vehicles will no longer be forced to idle at an at-grade crossing, the average vehicle will save 11,741 gallons annually.
Reduced Greenhouse Gas (GHG) Emissions	As vehicles will no longer be forced to idle at an at-grade crossing and trains will not have to reduce speeds, GHG emissions will be reduced.
Improved Goods Movement	RCE will ensure trucks no longer lose time waiting for trains to cross and trains will no longer be forced to slow at crossings, improving the flow of goods.

Additionally, public engagement throughout the development of the master plan will ensure community priorities remain at the forefront of the identified solutions, allowing for more efficient and equitable decision-making.

6.4 Expected Users and Beneficiaries

Primary beneficiaries of the Project will be local residents from the adjacent communities and RTA/Amtrak riders. Addressing at-grade crossings will not only improve access to community destinations but reduce travel time, improve safety, and reduce emissions. Figure 6-4 depicts the queues that form when a train is passing an at-grade crossing. These queues often extend back into adjacent intersections.

Figure 6-4. West 15th Street Crossing (012071F)



The Project will reduce or eliminate delays for commercial traffic, which benefits freight shippers and over-the-road truck operators. The construction projects preliminarily identified within the master plan will also create jobs and opportunities for local small business owners when implemented.

Beneficiaries also include emergency responders, local businesses, BNSF (who owns the track, grade-crossing warning devices, and the railroad right-of-way in the RTA service region), and Amtrak (who operates the Heartland Flyer service along this corridor).

6.5 Specific Components and Elements of the Project

The Project will complete a comprehensive master plan summarizing the evaluation, analysis, and prioritization of 52 at-grade crossings within the RTA service region. FRA's GradeDec tool will be employed to analyze the corridor and evaluate the highway-rail grade-crossing upgrades, separations, and closures. This web-based application will be used to support grade-crossing planning, management, and investment decisions.

A prioritization matrix will identify grade separation, safety improvements, and closure projects that provide the greatest benefits to disadvantaged communities, safety, emissions, accessibility to emergency services, community connectivity, and good jobs. Public engagement will be a key part of the Project to identify community concerns and to present prioritization results.

The Project will consist of the following tasks:

Field Diagnostic Review

This task will conduct a field diagnostic review at each crossing location to verify existing conditions and identify potential alternatives to grade separation. The diagnostic review will be done in partnership with BNSF and may identify the following types of improvements to rail-highway crossings:

- Additional warning devices
 - Active traffic warning devices (signals, gates) upgrades
 - Passive traffic warning devices (signs, pavement markings, raised curbs, barriers, fences)
- Crossing closure and removal
- Grade separation

Stakeholder and Community Engagement

This task will seek stakeholder and community input through various engagement activities such as meetings, workshops, and surveys at key milestones of the master plan. Community engagement will assist in developing evaluation criterion and alternatives recommendations. Community members will have direct input in the results of the prioritization matrix and the recommended alternatives. This level of engagement will require extensive community outreach including various advertising methods.

ODOT will continue to educate all system users on where and how to access information on the status of the states’ roadways. This will include targeted outreach on grade-crossing safety as previously conducted for the Oklahoma Highway-Rail Grade Crossing State Action Plan and State Rail Plan. ODOT is committed to helping all Oklahomans understand capital, operations, and technology investments and enhancements that are programmed on the state’s transportation system.

Evaluation Criterion Development

This task will develop an evaluation criterion establishing a scoring system to rank at-grade railroad crossings for prioritization. The evaluation criteria may include location in a disadvantaged community, number of fatal and severe crashes, vehicular AADT, FRA safety criteria, and accident predictions using the FRA GXAPS model. FRA, cloud-based mobility data, and OK.Rail databases will be leveraged in the development of the evaluation criterion for grade-crossing information such as accident prediction values, train traffic figures, and train speeds.

Grade Crossing Analysis and Prioritization

This task will establish a score and rank for crossings and develop recommended project alternatives and actions for each crossing. Data for each railroad at-grade crossing relevant to the evaluation criteria will be compiled and the results of the field diagnostic review will be analyzed. Delay data will be analyzed to determine which crossings create the longest delays for vehicles, including commercial trucks and multimodal users. Cost estimating and cost benefit analyses will also be performed. Results will be shared with local communities.

Implementation Strategy Development

This task will identify and analyze implementation considerations and potential funding strategies for the recommended alternatives and actions for prioritized grade crossings. This will include outlining available funding sources and requirements, timing considerations with other railroad projects, coordination and partnership agreements between agencies, and drafting strategies for construction implementation.

Final Master Plan

This task will prepare a Final Master Plan Report which details the analysis of the grade crossings, summarizes the stakeholder and community feedback received, provides recommendations for alternatives and actions of prioritized grade crossings, and provides next steps for implementation and funding.

6.6 Proposed Performance Measures

Table 6-2. Proposed Performance Measures

52	Unit Measures	Temporal	Primary Administration Goal	Secondary Administration Goal	Description
Completion of Stakeholder Coordination Plan	Report	One-Time	NA	NA	Completion of Stakeholder Coordination Plan acceptable to FRA
Completion of Final Master Plan Report	Report	One-Time	NA	NA	Completion of Final Master Plan Report acceptable to FRA

7. HIGHWAY-RAIL GRADE CROSSING SAFETY INFORMATION AND EDUCATION PROGRAMS:

Not applicable for this project.

8. PROJECT LOCATION

8.1 Geospatial Data

The Project is located in the cities of Edmond, Norman, and Oklahoma City within the State of Oklahoma. The Project focuses on a vital transportation corridor in Central Oklahoma, encompassing 52 at-grade crossings along a rail corridor that extends from the City of Norman to the City of Edmond. The corridor is proposed for future commuter rail with service operated by RTA within the BNSF corridor. This corridor passes through key urban areas and serves as a major freight north-south artery for the region. The corridor will support a high volume of both commuter and freight traffic, making it essential for regional connectivity. The 52 at-grade crossings are identified in Table 8-1 and depicted on Figure 8-1. Current delays at the at-grade rail crossings in the corridor negatively affect the daily lives of residents and the operation of businesses.

Figure 8-1. Project Location Map

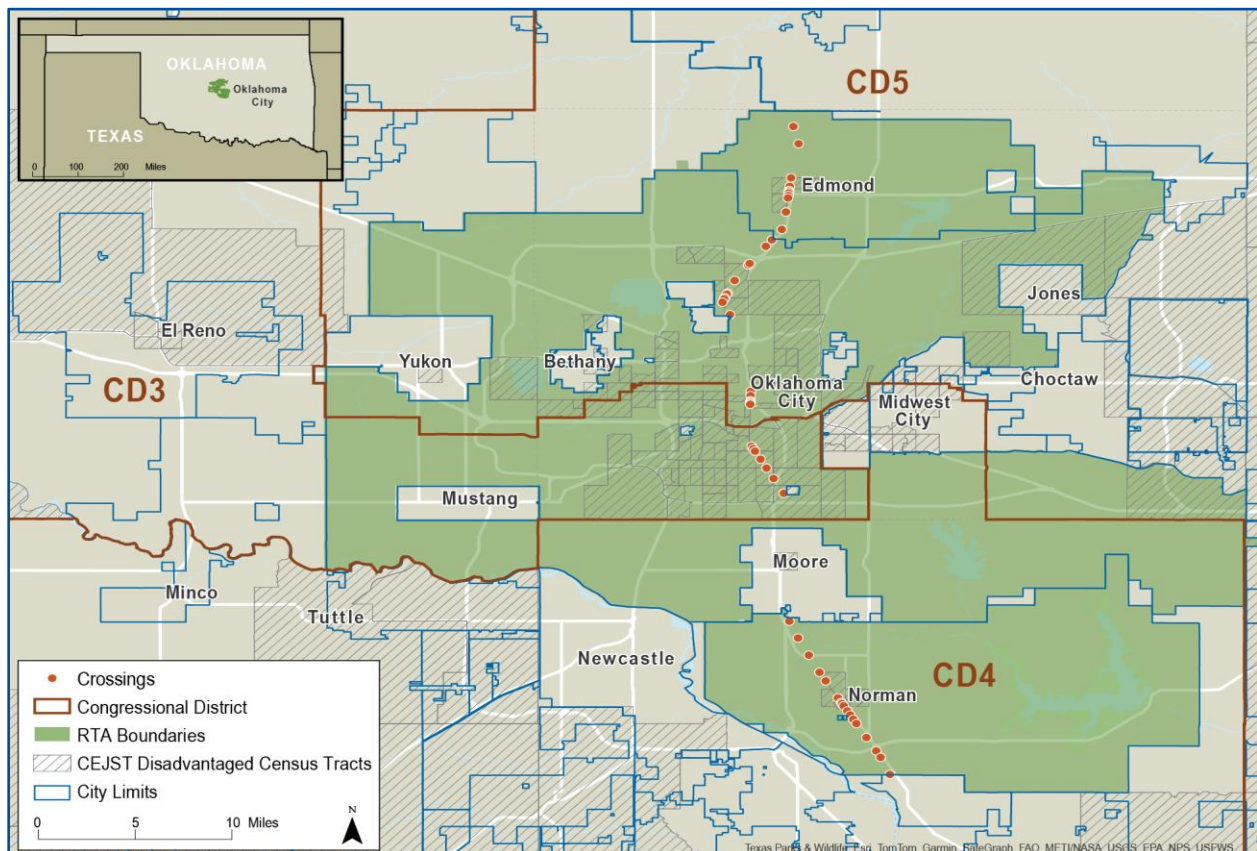


Table 8-1. Affected Grade Crossing Data

USDOT Grade Crossing Inventory Number	Railroad Milepost	Street Name	Crossing Position	Latitude	Longitude	AADT
012060T	365.96	West Sorghum Mill Road	At Grade	35.710900	-97.479960	3,668
012061A	366.991	East Coffee Creek Road	At Grade	35.696319	-97.476075	4,763
012063N	369.179	West Danforth Road	At Grade	35.667340	-97.481690	20,164
012064V	369.685	West Thatcher Street	At Grade	35.660030	-97.482660	926
012065C	369.928	West Hurd Street	At Grade	35.656530	-97.483120	1,317
012066J	370.003	West Main Street	At Grade	35.655480	-97.483330	1,498
012067R	370.075	West 1st Street	At Grade	35.654420	-97.483520	1,357
012069E	370.220	West 3rd Street	At Grade	35.652330	-97.483680	1,285
012070Y	370.364	West 5th Street	At Grade	35.650270	-97.483990	673
012071F	371.190	West 15th Street	At Grade	35.638340	-97.485560	19,964
012072M	372.232	West 33rd Street	At Grade	35.623560	-97.488610	17,251
012073U	372.971	North Kelley Avenue	At Grade	35.614700	-97.496000	2,250
012074B	373.432	Memorial Road	At Grade	35.609130	-97.500610	800
012248V	374.643	North-West 122nd Street	At Grade	35.594610	-97.512650	10,184
012075H	374.752	North Santa Fe Avenue	At grade	35.593320	-97.513720	7,452
012076P	375.828	West Hefner Road	At Grade	35.580150	-97.523900	8,300
012077W	376.617	North-West 97th Street	At Grade	35.569570	-97.529200	3,000
012078D	376.689	North-West 96th Street	At Grade	35.568560	-97.529800	3,000
012080E	376.915	North-West Britton Road-North Western Avenue	At Grade	35.565540	-97.531300	14,516
012081L	376.992	North-West 92nd Street	At Grade	35.564550	-97.531800	1,300
012082T	377.200	North-West 89th Street	At Grade	35.561700	-97.532900	700
012084G	378.000	West Wilshire Boulevard	At Grade	35.551120	-97.527400	9,600
012092Y	382.606	North-West 16th Street	At Grade	35.486010	-97.511800	4,500
012094M	382.857	North-East 13th Street	At Grade	35.482380	-97.512000	4,500
012098P	383.153	North-East 10th Street	At Grade	35.478080	-97.512100	14,700
012099W	383.222	9th Street	At Grade	35.477050	-97.512100	2,000
012100N	383.296	North-West 8th Street	At Grade	35.476020	-97.512200	1,500
012101V	383.368	North-West 7th Street	At Grade	35.474950	-97.512200	3,000
012119F	385.842	South-East 25th Street	At Grade	35.439390	-97.511200	8,000
012120A	386.003	South-East 27th Street	At Grade	35.437320	-97.510000	4,396
012121G	386.160	South-East 29th Street	At Grade	35.435240	-97.508700	10,800
012122N	386.689	South-East Grand Boulevard	At Grade	35.428350	-97.504600	6,800
012124C	387.271	South-East 44th Street	At Grade	35.420810	-97.500100	11,200
012125J	387.945	South High Ave	At Grade	35.412010	-97.494760	2,505
012128E	388.914	Crossroads Boulevard	At Grade	35.399410	-97.487200	2,881
012192D	396.437	West Indian Hills Road	At Grade	35.290810	-97.483000	6,305
012193K	397.503	West Franklin Road	At Grade	35.276510	-97.476500	4,132

USDOT Grade Crossing Inventory Number	Railroad Milepost	Street Name	Crossing Position	Latitude	Longitude	AADT
012194S	398.600	West Tecumseh Road	At Grade	35.261970	-97.468500	17,980
012195Y	399.702	West Rock Creek Road	At Grade	35.247390	-97.460400	10,522
012197M	400.264	Lexington Street	At Grade	35.240110	-97.455900	915
012199B	401.393	West Acres Street	At Grade	35.225620	-97.446700	4,395
012202G	401.692	East Gray Street	At Grade	35.221770	-97.444200	6,826
012203N	401.765	West Main Street	At Grade	35.220810	-97.443600	9,327
012204V	401.913	West Eufaula Street	At Grade	35.218930	-97.442400	3,677
012205C	402.000	East Duffy Street	At Grade	35.214560	-97.439700	2,081
012206J	402.521	East Boyd Street	At Grade	35.211130	-97.437500	12,900
012207R	402.800	East Brooks Street	At Grade	35.207490	-97.435200	3,717
012208X	403.082	East Lindsey Street	At Grade	35.203860	-97.432900	15,058
012210Y	404.007	East Constitution Street	At Grade	35.192000	-97.425400	9,990
012212M	404.886	Private	At Grade	35.180670	-97.418200	100
012213U	405.315	East Cedar Lane Road	At Grade	35.175150	-97.414800	11,131
012214B	406.380	East Post Oak Road	At Grade	35.160690	-97.407900	398

Congressional District

The crossings are located in the 3rd, 4th, and 5th Congressional Districts of Oklahoma.

Community Profile

The cities of Edmond, Norman, and Oklahoma City represent a diverse and interconnected region in Central Oklahoma, with each city providing unique contributions to the local economy and community life.

Improving safety at the 52 at-grade rail crossings along the corridor from Norman to Edmond is essential to enhancing transportation efficiency and community well-being in these interconnected cities. Improving these crossings will not only enhance safety but also support economic development and quality of life in these communities.

City of Edmond

According to the American Community Survey (ACS) 2022 5-year Data Estimate, the City of Edmond has a population of about 94,503. Edmond is predominantly white (87.6%), with Black or African American (7.7%), American Indian and Alaska Native (6.1%), Asian (4.8%), Native Hawaiian and other Pacific Islander (0.2%), with 3.8% of people from other races not mentioned above. Edmond’s strong economic profile, marked by a median household income of \$96,389, is underpinned by key industries including education, retail, and healthcare. These industries not only provide employment opportunities for residents but also attract commuters from surrounding areas, contributing to Edmond’s economic vitality. The transportation network in Edmond includes U.S. Route 77 and State Highway 66, and like Norman, the City of Edmond is impacted by 12 at-grade crossings of the BNSF Railway. These crossings are a focal point for traffic safety concerns and disruptions, highlighting the need for targeted improvements to enhance local mobility and safety.



City of Norman

The City of Norman has a population of approximately 127,701. Norman is predominantly white (83.7%) but also has significant indigenous population with 8.8% identifying as American Indian and Alaska Native. This is reflective of Oklahoma’s broader demographic, where the indigenous population has a deep historical and cultural presence. Other racial groups in Norman include Black or African American (7.4%), Asian (6.1%), Native Hawaiian and other Pacific Islander (0.3%), alongside a growing population of people from races not mentioned above (5.3%). The median household income in Norman is around \$62,849, with about 17.7% of the population living below the poverty line. The economic disparity in Norman suggests a need for transportation infrastructure that caters to all segments of the population. The significant minority presence underscores the importance of equitable access to services and transportation. The city’s economy benefits greatly from the presence of the University of Oklahoma, which drives major sectors such as higher education, retail, and healthcare. Norman’s transportation infrastructure is supported by key routes, including U.S. Route 77 and State Highway 9. However, the presence of 17 at-grade BNSF rail crossings present ongoing challenges for traffic flow and safety, particularly along heavily trafficked corridors. The at-grade crossings are not only a concern for vehicular congestion but also pose safety risks for pedestrians and cyclists. For instance, blocked rail crossings cause significant delays for University of Oklahoma students and staff. Many of the crossings (for example, Crossing ID 012206J and Crossing ID 012210Y) are along routes frequently used by the university community. Additionally, navigating the at-grade crossings is a safety risk to students who are often on foot or riding a bicycle. This is of particular concern when the rail crossing does not have adequate safety infrastructure. The delays and safety issues at these crossings not only impact university-related traffic but the broader community as well. Therefore, addressing these at-grade crossings is crucial for maintaining efficient mobility and safety for Norman’s residents.



Oklahoma City

Oklahoma City is the largest urban center in the region. The City has a population of 681,088 and is distinguished by its diverse demographic composition—72.3% white, 16.6% Black or African American, 7.4% American Indian and Alaska Native, 5.8% Asian, 0.3% Native Hawaiian and other Pacific Islander and 10.3% of people from other races not mentioned above. The city’s robust economy, driven by industries such as i) educational services, health care and social assistance, ii) professional, scientific, and management, and administrative and waste management services iii) finance and insurance, and real estate and rental and leasing, and iv) Retail trade which are all supported by major highways including Interstate 35, Interstate 44, and Interstate 40. As a major rail hub with extensive BNSF Railway and Union Pacific lines, Oklahoma City faces significant transportation challenges related to at-grade crossings that impact both residential and commercial traffic.



9. GRADE CROSSING INFORMATION

The at-grade crossing information for this Project is provided in Table 9-1. Based on preliminary assessments and local expertise, several crossings may be ideal candidates for grade separation or elimination, particularly those with high traffic volumes and significant safety concerns. Other crossings may benefit from significant safety improvements through the installation of advanced warning devices

or other enhancements. However, a detailed evaluation will be completed as part of the master plan to determine the most effective measure for each location that maximizes safety and mobility for all users across the corridor.

Table 9-1. Grade Crossing Information

USDOT Grade Crossing Inventory Number	Proposed Improvement	Primary Rail Operator	Crossing Owner	Roadway at Crossing	Coordinates	
					Latitude	Longitude
012060T	To be determined	BNSF	BNSF	West Sorghum Mill Road	35.710900	-97.479960
012061A	To be determined	BNSF	BNSF	East Coffee Creek Road	35.696319	-97.476075
012063N	To be determined	BNSF	BNSF	West Danforth Road	35.667340	-97.481690
012064V	To be determined	BNSF	BNSF	West Thatcher Street	35.660030	-97.482660
012065C	To be determined	BNSF	BNSF	West Hurd Street	35.656530	-97.483120
012066J	To be determined	BNSF	BNSF	West Main Street	35.655480	-97.483330
012067R	To be determined	BNSF	BNSF	West 1st Street	35.654420	-97.483520
012069E	To be determined	BNSF	BNSF	West 3rd Street	35.652330	-97.483680
012070Y	To be determined	BNSF	BNSF	West 5th Street	35.650270	-97.483990
012071F	To be determined	BNSF	BNSF	West 15th Street	35.638340	-97.485560
012072M	To be determined	BNSF	BNSF	West 33rd Street	35.623560	-97.488610
012073U	To be determined	BNSF	BNSF	North Kelley Avenue	35.614700	-97.496000
012074B	To be determined	BNSF	BNSF	Memorial Road	35.609130	-97.500610
012248V	To be determined	BNSF	BNSF	North-West 122nd Street	35.594610	-97.512650
012075H	To be determined	BNSF	BNSF	North Santa Fe Avenue	35.593320	-97.513720
012076P	To be determined	BNSF	BNSF	West Hefner Road	35.580150	-97.523900
012077W	To be determined	BNSF	BNSF	North-West 97th Street	35.569570	-97.529200
012078D	To be determined	BNSF	BNSF	North-West 96th Street	35.568560	-97.529800
012080E	To be determined	BNSF	BNSF	North-West Britton Road-North Western Avenue	35.565540	-97.531300
012081L	To be determined	BNSF	BNSF	North-West 92nd Street	35.564550	-97.531800
012082T	To be determined	BNSF	BNSF	North-West 89th Street	35.561700	-97.532900
012084G	To be determined	BNSF	BNSF	West Wilshire Boulevard	35.551120	-97.527400
012092Y	To be determined	BNSF	BNSF	North-West 16th Street	35.486010	-97.511800
012094M	To be determined	BNSF	BNSF	North-East 13th Street	35.482380	-97.512000
012098P	To be determined	BNSF	BNSF	North-East 10th Street	35.478080	-97.512100
012099W	To be determined	BNSF	BNSF	9th Street	35.477050	-97.512100
012100N	To be determined	BNSF	BNSF	North West 8th Street	35.476020	-97.512200
012101V	To be determined	BNSF	BNSF	North-West 7th Street	35.474950	-97.512200
012119F	To be determined	BNSF	BNSF	South-East 25th Street	35.439390	-97.511200
012120A	To be determined	BNSF	BNSF	South-East 27th Street	35.437320	-97.510000
012121G	To be determined	BNSF	BNSF	South-East 29th Street	35.435240	-97.508700
012122N	To be determined	BNSF	BNSF	South-East Grand Boulevard	35.428350	-97.504600
012124C	To be determined	BNSF	BNSF	South-East 44th Street	35.420810	-97.500100
012125J	To be determined	BNSF	BNSF	South High Avenue	35.412010	-97.494760
012128E	To be determined	BNSF	BNSF	Crossroads Boulevard	35.399410	-97.487200
012192D	To be determined	BNSF	BNSF	West Indian Hills Road	35.290810	-97.483000

USDOT Grade Crossing Inventory Number	Proposed Improvement	Primary Rail Operator	Crossing Owner	Roadway at Crossing	Coordinates	
					Latitude	Longitude
012193K	To be determined	BNSF	BNSF	West Franklin Road	35.276510	-97.476500
012194S	To be determined	BNSF	BNSF	West Tecumseh Road	35.261970	-97.468500
012195Y	To be determined	BNSF	BNSF	West Rock Creek Road	35.247390	-97.460400
012197M	To be determined	BNSF	BNSF	Lexington Street	35.240110	-97.455900
012199B	To be determined	BNSF	BNSF	West Acres Street	35.225620	-97.446700
012202G	To be determined	BNSF	BNSF	East Gray Street	35.221770	-97.444200
012203N	To be determined	BNSF	BNSF	West Main Street	35.220810	-97.443600
012204V	To be determined	BNSF	BNSF	West Eufaula Street	35.218930	-97.442400
012205C	To be determined	BNSF	BNSF	East Duffy Street	35.214560	-97.439700
012206J	To be determined	BNSF	BNSF	East Boyd Street	35.211130	-97.437500
012207R	To be determined	BNSF	BNSF	East Brooks Street	35.207490	-97.435200
012208X	To be determined	BNSF	BNSF	East Lindsey Street	35.203860	-97.432900
012210Y	To be determined	BNSF	BNSF	East Constitution Street	35.192000	-97.425400
012212M	To be determined	BNSF	BNSF	Private	35.180670	-97.418200
012213U	To be determined	BNSF	BNSF	East Cedar Lane Road	35.175150	-97.414800
012214B	To be determined	BNSF	BNSF	East Post Oak Road	35.160690	-97.407900

10. SAFETY BENEFIT DATA

The proposed Project aims to address safety concerns at 52 at-grade crossings. These crossings are part of a heavily trafficked BNSF rail corridor which intersects critical roadways in the cities of Edmond, Norman, and Oklahoma City. According to the FRA’s Highway GXAPS data, over the past 5 years, these crossings have experienced a total of 22 incidents: 6 accidents in 2023, 6 in 2022, 5 in 2021, 1 in 2020, and 4 in 2019 including 1 accident on a private crossing (Crossing ID 012212M). The GXAPS average predicted accident rate across the 52 crossings stands at 0.076 accident per year, which highlights the continued risk to both vehicles and pedestrians.

Of the 52 at-grade crossings, several rank high for predicted accident risk, including those at E Boyd Street (Crossing ID 012206J) and West 15th Street (Crossing ID 012071F). The E Boyd Street Crossing in Norman has an average daily traffic volume of 12,900 vehicles and a GXAPS predicted accident rate of 0.599 per year. This crossing has a troubling history of accidents with two accidents in 2023, one in 2020, and another one in 2019. Similarly, the West 15th Street crossing in Edmond, which sees an average of 19,964 vehicles daily, has a GXAPS predicted accident rate of 0.458 in a year, with three incidents in the past 5 years. Other crossings, such as those at Lexington Street in Norman (Crossing ID 012197M) and NW 122nd Street in Oklahoma City (Crossing ID 012248V), also have higher GXAPS predicted accident rates. The GXAPS predicted accident rates per year on Lexington Street crossing and NW 122nd Street are 0.298 and 0.312, respectively. The crossings recorded multiple crashes in recent years. West Danforth Road (Crossing ID 012063N) and West 33rd Street (Crossing ID 012072M) in Edmond among others, have had fewer incidents and lower GXAPS average predicted accident rates of 0.022 and 0.023. Proactive safety enhancements are needed due to the location of crossings on major roadways with substantial traffic volumes.

Table 10-1. GXAPS 5-year Accident History

USDOT Grade Crossing Inventory Number	Street Name	Predicted Accident Rank	Average Predicted Accidents	Yearly Accident Count					AADT
				2023	2022	2021	2020	2019	
012206J	East Boyd Street	1	0.599486	2	0	0	1	1	12,900
012071F	West 15 th Street	2	0.457906	1	1	1	0	0	19,964
012248V	North-West 122nd Street	3	0.311936	0	0	1	0	1	10,184
012197M	Lexington Street	4	0.297719	1	0	1	0	0	915
012203N	West Main Street	5	0.172733	0	0	0	0	1	9,327
012202G	East Gray Street	6	0.170346	1	0	0	0	0	6,826
012076P	West Hefner Road	7	0.165490	0	1	0	0	0	8,300
012122N	South-East Grand Boulevard	8	0.165081	0	1	0	0	0	6,800
012194S	West Tecumseh Road	9	0.164790	0	1	0	0	0	17,980
012210Y	East Constitution Street	10	0.164132	1	0	0	0	0	9,990
012098P	North-East 10 th Street	11	0.159614	0	0	1	0	0	14,700
012205C	East Duffy Street	12	0.159177	0	0	1	0	0	2,081
012120A	South-East 27 th Street	13	0.156771	0	1	0	0	0	4,396

For example, while the FRA GXAPS data in Table 10-1 shows no accidents have occurred in the past 5 years at the North-West Britton Road- North Western Avenue crossing in Oklahoma City (Crossing ID 012080E), BNSF records reveal significant service interruptions and a history of 27 vehicle-train collisions at this crossing, with the last incident occurring on February 14, 2016. These incidents involved vehicles stopping, stalling, or being abandoned on the crossing, resulting in 1.5-mile-long trains having to emergency brake. These service interruptions not only impact the West Britton Road crossing but result in trains occupying adjacent crossings as well, further exacerbating traffic delays and safety risks.

The Project also seeks to address pedestrian safety. Significant pedestrian volumes are recorded across all 15 crossings with an accident history. E Boyd Street averages 865 pedestrians per day, W Main Street averages 575 pedestrians, W 15th Street averages 476 pedestrians, and E Constitution Street averages 453 pedestrians. The pedestrian traffic at these 15 locations is notably diverse, including 2,130 white individuals, 195 Black individuals, 125 American Indian individuals, 122 Asian individuals, 3 Pacific Islander individuals, 125 individuals of Other Race, 370 individuals of multiple races, and 321 Hispanic individuals. Furthermore, 352 pedestrians are reported to have disabilities.

The safety and demographic diversity data underscore the critical need for targeted improvements at these crossings to mitigate the risk of future incidents. The improvements identified through the Project will significantly enhance safety for both vehicles and pedestrians, including vulnerable populations who face higher risks, thus reducing the likelihood of collisions at these high-risk crossings. Through the evaluation of the unique safety challenges at each crossing, the Project will contribute to a safer and more reliable transportation network across the corridor, resulting in long-term safety benefits for the surrounding communities. The Project will also align with broader regional and national safety objectives, reinforcing ODOT’s commitment to improving public safety.

11. EVALUATION AND SELECTION CRITERIA

11.1 Evaluation Criteria

Project Readiness

National Environmental Policy Act (NEPA) and Environmental Permitting

The Project is a planning project and the NEPA process is not yet underway. The Project is expected to qualify for a categorical exclusion under 23 U.S.C. 771.116 FRA CE-3, Planning and Design Activities: planning or design activities that do not commit to a particular course of action affecting the environment.

No environmental permits are anticipated.

Status and Timeline of Agreements

ODOT expects to finalize grant obligation by October 2025, which is expected to be approximately 6 months after the grant award announcement. The Project is expected to be complete by April 2027.

A 49 U.S.C. 22905-compliant Railroad Agreement with BNSF will be completed post award.

Lifecycle Stage

The grant request is for the Project Planning lifecycle stage consisting of activities such as public and stakeholder involvement, development of evaluation criteria, and evaluation and prioritization of at-grade crossings.

Partner Coordination and Commitments

ODOT is providing a financial commitment to the Project and their letter of funding commitment is attached to this application. RTA is a project partner and has provided a letter of support. Additional letters of support are attached from the Association of Central Oklahoma Governments, Chambers of Commerce, City of The Village, Kansas Department of Transportation, City of Nichols Hills, members of Congress, BNSF, Amtrak, City of Edmond, the City of Norman, and Oklahoma City.

Technical Merit

Tasks and Subtasks Outlined in the SOW Are Appropriate to Achieve the Expected Outcomes

Please refer to Attachment 2 for the Statement of Work (SOW) detailing the Project components.

ODOT estimates that the Project period of performance will be complete in October 2027.

The breakdown of Project tasks is as follows:

- **Task 1:** Project Administration and Management
 - Subtask 1.1: Project Administration
 - Subtask 1.2: Project Management Plan
 - Subtask 1.3: Project Closeout
- **Task 2:** Master Plan Development
 - Subtask 2.1: Field Diagnostic Review
 - Subtask 2.2: Stakeholder and Community Engagement
 - Subtask 2.3: Evaluation Criterion Development
 - Subtask 2.4: Grade Crossing Analysis and Prioritization
 - Subtask 2.5: Implementation Strategy Development
 - Subtask 2.6: Final Master Plan

Technical Qualifications and Experience of Key Personnel

ODOT has extensive experience delivering grant projects of similar scope. ODOT has been awarded 15 federal grants since 2016, ranging from just under one million dollars to \$123.85 million dollars, including the 2020 CRISI Kiamichi Tri-State Rail Project.

ODOT will designate experienced staff to manage the proposed Project. ODOT has dedicated staff for grant agreements, reporting, performance measures, and project delivery. ODOT works closely with the assigned federal points of contact to ensure all grant administrative requirements are met. ODOT has standard procedures in place to manage planning projects and completes similar projects regularly such as the [I-35 corridor study](#). Through Section 130 funding and other grant awards, ODOT has proven expertise and successfully administered Federal Transit Administration and Federal Highway Administration funds.

Additionally, ODOT's Section 130 funding has increased from 5.6M up to 8M annually to increase safety at at-grade crossings due to fatal crashes. ODOT implements measures beyond lights and gates at crossings to include physical barriers such as medians to prevent drivers going around active gates.

Project Identified in State Plans

The proposed Project is consistent with planning guidance and documents set forth by the U.S. Department of Transportation (USDOT), including those required by law or state rail plans developed under 49 U.S.C. 227. The proposed Project is consistent with the Oklahoma State Freight and Rail Plans.

Deployment of Innovative Technology

The Project will deploy innovative strategies from USDOT's Virtual Public Involvement Toolkit for stakeholder and community engagement. Some of the strategies considered include map surveys which allow the public to make a comment on a digital map showing the locations of proposed improvements, hosting virtual public meetings, and using a tracking tool to manage public comments.

The Project will also consider the use of innovative technologies in the list of proposed solutions identified within the master plan. These improvements may include the latest technology in the installation or upgrade of active traffic controls which give visual and audible advance notice of approaching trains. Examples include flashing light signals (both mast-mounted and cantilevered), bells, automatic gates, active advance warning devices, and highway traffic signals. Flashing light signals operate on a calculated schedule based on speed variance timed before the arrival of oncoming trains at highway-rail grade crossings. Warning devices employed in active traffic control systems are actuated by train detection with circuits designed on the failsafe principle. Where "Preemption" will be installed, the normal sequence of traffic control signal indications will be preempted upon the approach of trains to avoid entrapment of vehicles on the highway-rail grade crossing by conflicting aspects of the traffic control signals and the highway-rail grade crossing flashing light signals. Additionally, the prevalence of smartphones will provide additional audio and visual alerts for navigation systems to help notify drivers of potential encounters with trains as they approach a crossing.

Financial Support from Impacted Rail Carrier(s)

BNSF is not providing financial support for the Project. However, BNSF is a strong supporter of the Project, and their letter of support is attached to this application.

Improved Mobility of People and Goods

The Project, situated within BNSF's Red Rock Subdivision, lying along a bustling freight corridor that comprises the largest percentages of Oklahoma's overall inbound/outbound freight tonnage. Rail tonnage growth is projected to increase from 37.9 to 43.2 million tons total from 2017 to 2045.

The track at the Project's location is predominately a single-track rail line with various passing sidings. This existing rail line effectively bifurcates the RTA service region, causing accessibility issues due to the

frequent train traffic, averaging 26 trains daily, including the 2 Amtrak passenger trains that make up the Heartland Flyer's daily roundtrip service.

However, future implementation of strategies identified within the master plan will significantly reduce travel delays for all users. Currently, the crossings experience an average of 26 freight train-related delays per day. These delays affect all system users, including emergency responders, passenger vehicles, pedestrians, cyclists, and the trains traversing the corridor.

RTA is in the process of developing a long-term transit system plan for the Central Oklahoma region. To do this, RTA has focused on identifying regional corridors to evaluate for high-capacity transit options and meet goals for the transit system plan. The north/south corridor identified in 2021 within the RTA Transit System Plan: Regional Corridors followed along the rail corridor and its crossings identified within the Project. The 2024 update clarified the corridor as a commuter rail corridor, using the existing BNSF railroad corridor connecting Edmond to Norman via Oklahoma City. The regional corridor recommendation is based on the results of previous studies and plans completed for the region and presents key opportunities for high-capacity transit, connecting more people to the key activity centers in the Central Oklahoma region. Investments into the corridor indicate a vision for high-capacity transit to complete a comprehensive transit system providing important connections to the Central Oklahoma region for years to come.

The Project therefore aims to enhance the mobility of various transportation modes, improving accessibility to community services, local businesses, healthcare, schools, and various other amenities. Project funding will allow ODOT to analyze a variety of suitable strategies, balancing the needs of the community and safety against improved mobility and surface transportation network flow.

Project Benefits

Improves Safety at Highway-Rail Grade Crossings

The proposed enhancement of the 52 at-grade crossings along the corridor from Norman to Edmond, Oklahoma, is a pivotal initiative aimed at significantly improving safety for all road users. The current safety data underscores the urgency of this project, with predicted accident rates ranging from 0.006 to 0.599. The E Boyd Street crossing (Crossing ID 012206J) in Norman has a high predicted accident rate of 0.599 and is of particular concern due to its heavy use by students traveling between residential areas and the University of Oklahoma campus. The crossing is located about 0.2 mile from the university campus. Similarly, improving safety on Crossing ID 012094M near the University of Oklahoma Health Center will be crucial to providing easy and safe access to essential medical services. These specific examples are among many others that highlight critical areas of risk. The Project's scope encompasses the development of solutions that will create comprehensive safety enhancements designed to mitigate risks and prevent potential accidents. Through the identification of targeted safety improvements at all 52 crossings, the Project will facilitate more efficient and reliable commutes, along with improved accessibility to key destinations.

Proposes to Grade Separate, Eliminate, or Close One or More Highway-Rail or Pathway-Rail Grade Crossings

The Project will consider various safety improvements for at-grade crossings within the RTA service region, including at-grade crossing elimination.

Improves the Mobility of Both People and Goods

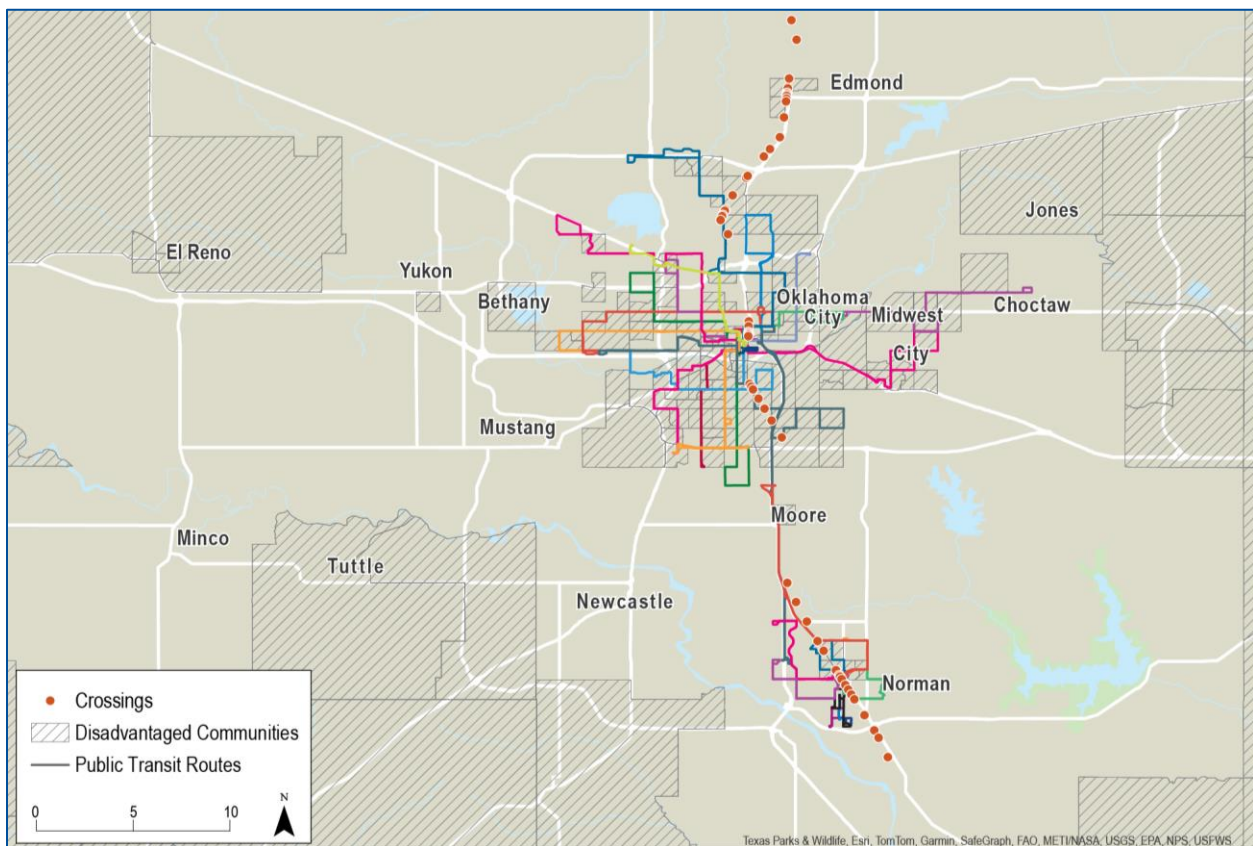
Following implementation, the solutions identified within the master plan will improve the mobility of people and goods. The 52 at-grade crossings lie along a bustling freight corridor that is expected to experience 2.4% growth annually, with more than 300 million tons of goods passing through the state annually (Figure 6-2). The reduction of freight train-related delays will improve the mobility of goods to and from the Ports of Texas, which is the source of 43% of inbound freight to the State of Oklahoma. The leading groups by tonnage are gravel, metals, and minerals; fuels; and chemicals. The leading groups by value are fuels, consumer goods (primarily transportation equipment), and chemicals.

The Oklahoma Freight Transportation Plan 2023–2030 identified that the most public impact of rail movements to the general public is at highway/rail grade crossings. Crossings where vehicular traffic and rail traffic intersect creates potential for safety issues, public safety access issues, and congestion issues.

Currently, the at-grade crossings experience an average of 26 freight train-related delays per day. These delays affect all transportation system users. The Project aims to improve access to community services, local businesses, and amenities. Where at-grade crossings are eliminated, trains will no longer be forced to slow down. Improved train speeds will facilitate the efficient flow of goods movement while also helping to reduce fuel use as trains that are not forced to reduce and increase speeds use fuel more efficiently. This may translate back to consumer savings when companies choose to share these savings with consumers.

Safety improvements at at-grade railroad crossings will improve mobility for public transit and active transportation users as 13 crossings that intersect with 9 bus routes (Figure 11-1). A [BRT route](#) likewise cuts through one of the major crossings. At locations where crossings are eliminated, buses will no longer be forced to wait for trains to cross, improving travel-time reliability for transit users. Improved travel-time reliability and shorter travel times will reduce travel times, expanding access to opportunities for transit users. For those that travel by foot, bike, or roll, there will be safety improvements as well as travel-time benefits as these individuals will likewise no longer be forced to wait for trains to pass. Likewise, surface-level traffic such as trucks and cars will no longer be forced to wait for trains to cross or reroute onto lengthy alternative routes.

Figure 11-1. Public Transit Connectivity



Reduces Emissions, Protects the Environment, and Provides Community Benefit (including noise reduction)

Improved mobility of the transportation network will reduce GHG emissions and protect the environment as train traffic will no longer be forced to use additional fuel to reduce and increase speeds at crossings while vehicular traffic will no longer be forced to idle (Figure 11-2).

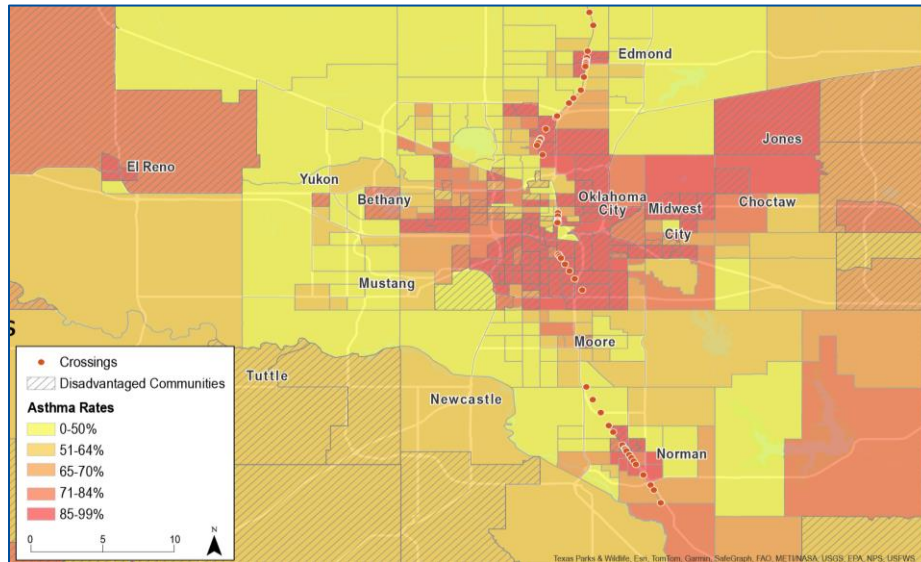
Figure 11-2. Cars Idling at NE 122nd Street



Reducing emissions builds on ODOT’s Carbon Reduction Strategy to further improve air quality across the state by reducing carbon dioxide (CO₂) emissions from the transportation sector. The transportation sector accounts for the greatest source of emissions within the state, at 35% of all emissions. Within the Project corridor, the average census tract is at the 71st percentile for asthma levels within the state (Figure 11-3). Asthma incidence rates are exceptionally high

throughout the State of Oklahoma and in the corridor, with nine census tracts falling above the 90th percentile, triggering the disadvantaged indicator. PM 2.5 levels for census tracts intersecting crossings is at the 82nd percentile.

Figure 11-3. Asthma Rates

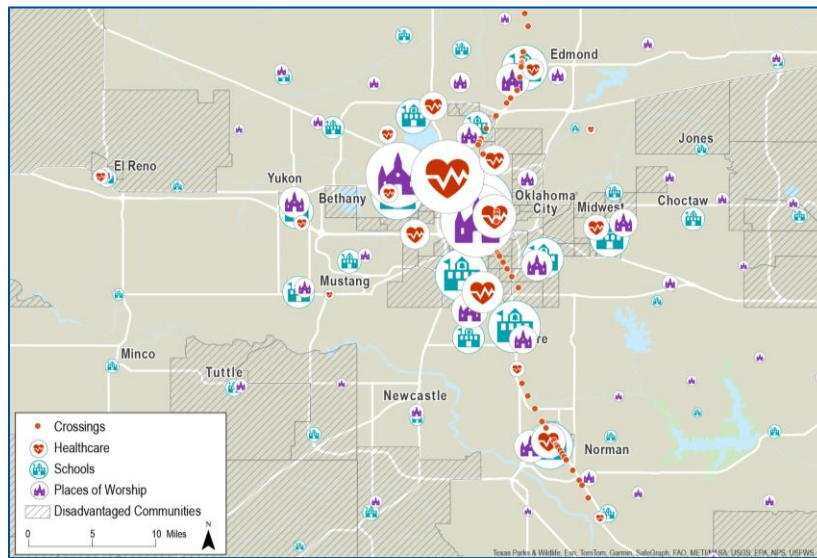


Improved air quality and reduced congestion will improve quality of life, reduce harm to human health, improve mobility efficiency, and boost economic productivity. By 2040, 35K pounds of CO₂ will be saved annually from the atmosphere if all subject crossings are eliminated.

Improves Access to Emergency Services

Implementation of the solutions identified through the master plan will improve access to emergency services through the reduction in vehicle miles traveled by emergency services throughout the RTA service region (Figure 11-4). Through the prevention of accidents and the reduction of travel delays for emergency services, the solutions identified in the master plan will improve access to vital services. Throughout the corridor, ingress and egress from the west to the east is currently hampered by train traffic. The Project will be vital for identifying solutions for improving accessibility for emergency services through the decrease in travel delays.

Figure 11-4. Key Destinations



Improves Access to Communities

Master plan actualization will increase access throughout the RTA service region as ingress and egress to communities is currently hampered by train traffic. The Project will look to enable pedestrians and bicyclists to cross the BNSF rail corridor safely, providing unimpeded access to the western and eastern portions of the RTA service region. This access is vital for the urban and rural communities as key destinations are located on both sides of the

rail corridor such as Oklahoma State University, Will Rogers World Airport, and Tinker Air Force Base. The Project will likewise improve mobility of community residents who choose to drive, reducing travel-time delays when trains are passing the crossings.

Provides Economic Benefit

Travel-time savings for all transportation network users will be realized with the implementation of identified solutions within the master plan. Due to fuel savings, the cost of goods can be adjusted to reduce costs to consumers, which in turn stimulates spending. With the reduction of idling time at blocked grade crossings, fuel savings directly affects community members as well. Money saved on fuel can be reinvested back into the community. Additionally, decreased healthcare costs are expected due to improved air quality, saving the government money on subsidized healthcare recipients as well as the healthcare system in general.

Uses Contracting Incentives to Employ Local Labor, to the Extent Permissible Under Federal Law

ODOT has a required Disadvantaged Business Enterprise (DBE) participation goal for contractors to provide fair opportunities for small, local businesses owned and controlled by socially and economically disadvantaged individuals to compete.

The ODOT DBE Program and the Unified Certification Program ensure adherence to *Code of Federal Regulations* (CFR) Title 49, Part 26, which outlines regulations for DBE participation. Both consultants and construction contractors are obligated to fulfill their stated DBE commitments. Initiatives such as ODOT’s On-Boarding Program provide valuable resources to DBEs, small businesses, and women-owned businesses. The program’s primary goal is to nurture these businesses into self-sustaining entities capable of effectively competing for and executing federally assisted highway projects. In support of DBE firms, the Project incorporates strategies for nondiscrimination and actively promotes local DBE firms in state contracts, adhering to Oklahoma law that requires justifying the selection of non-local companies unless they present the lowest bid.

Furthermore, the State of Oklahoma has [103 registered apprenticeship programs](#), overseen by the U.S. Department of Labor, which are pivotal to enhancing workforce skills, particularly in key sectors like transportation. The Project could leverage and benefit from the state’s workforce development initiatives, particularly in terms of employing skilled workers from apprenticeship programs and contributing to local economic growth through job creation and infrastructure improvement.

11.2 Selection Criteria

FRA Preference

The master plan will result in corridor-wide grade crossing improvements as well as the closure in one or more grade-separated crossings, as follows:

- A. Result in one or more grade-separated crossings;
- B. ~~Close grade crossings through track relocation; or~~
- C. Result in corridor-wide grade crossing improvements

Administration Priorities

Safety

Ensuring safety across all transportation infrastructure is a central focus for ODOT. This commitment extends to high-risk areas such as railway crossings, where the 52 crossings in the corridor from Norman to Edmond are particularly critical. These crossings, positioned in high-traffic areas and near vital destinations, present unique and pressing safety challenges due to their intersections between roadways and railways. The high AADT figures at these locations exacerbates the potential for accidents, highlighting the urgent need for enhanced safety measures.

Data from the FRA's GXAPS shows that these crossings have higher-than-average risk profiles. Historical accidents at these crossings have shown severe consequences, such as delayed emergency responses and increased risks of collisions with trains. Frequent train traffic further compounds these risks by obstructing emergency access, intensifying the urgency for targeted safety interventions. Similarly, the FRA's analysis of U.S. grade-crossing trends places Oklahoma 17th nationally for highway-rail grade crossing collisions, underscoring the critical need for focused safety measures.

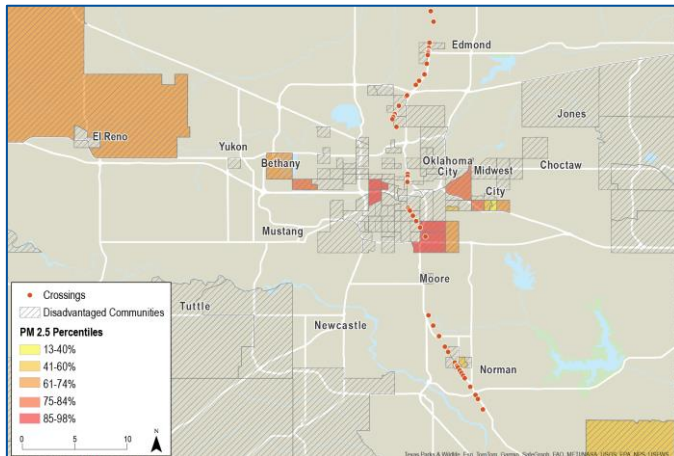
The proposed Project will enhance safety by identifying ways to eliminate direct conflicts between vehicles and trains and significantly reduce accident risk. Moreover, the proposed enhancements will ensure unobstructed access for emergency services, thus improving response times during critical incidents and contributing to overall community well-being. These improvements will not only bolster safety but also support economic growth and infrastructure resilience, aligning with the region's expansion and development.

Climate Change and Sustainability

Implementation of the strategies identified within the master plan will offer significant climate change and sustainability benefits for the RTA region. These include the following:

- **Reduction in Air Pollution and Greenhouse Gas Emissions:** By decreasing vehicle miles traveled (VMTs), commute times, and congestion, the proposed solutions will significantly reduce transportation-related air pollution and GHG emissions. This will support both local and global efforts to combat climate change. 35K pounds of CO₂ and nearly 10 million hours will be avoided if all subject crossings are eliminated.
- **Decrease in Idling Vehicle Emissions:** Reducing idling vehicle emissions is crucial as idling is detrimental to fuel economy, incurs costs, and creates pollution. The proposed solutions will look to help mitigate these issues.
- **Promotion of Sustainability:** By creating a more interconnected roadway network, the proposed solutions will reduce car dependence and improve pedestrian accessibility. This will conserve energy by shortening travel distances, reducing fuel consumption, and improving air quality (Figure 11-5).

Figure 11-5. PM2.5 Levels in the RTA Region



- Elimination of Extra Driving:** The proposed solutions will look to eliminate the need for extra driving to circumvent blocked railroad crossings. Currently, vehicles are forced to take longer, indirect routes, wasting fuel and extending travel times. The proposed solutions will streamline routes, saving fuel and reducing emissions.
- Improved Pedestrian and Cyclist Accessibility:** Pedestrians and bicyclists currently face restrictions due to blocked railroad tracks. The proposed solutions will evaluate potential improvements to accessibility.
- Enhanced Community Connectivity:** The proposed solutions will address the isolation caused by the railroad bisecting the RTA region. Increased accessibility for motorists and pedestrians will ensure shorter travel distances, conserving energy and improving air quality for residents. As the transportation sector accounts for the greatest source of emissions within the state, at 35% of all emissions, the average census tract is at the 71st percentile for asthma levels within the state and PM 2.5 levels for census tracts intersecting crossings is at the 82nd percentile. Project funding will look to maximize improvements to air quality, through reduced transportation emissions.

Equity and Justice⁴⁰

Thirty of the 52 crossings fall within CEJST-designated disadvantaged census tracts with burdens distributed across multiple categories such as health, housing, energy burden, legacy pollution, and workforce development. These overlapping burdens reflect systemic issues within the communities, highlighting the critical importance of this project to improve safety and alleviate socio-economic challenges.

For instance, at the Crossroads Boulevard crossing in Oklahoma City (Crossing ID 012128E), the prevalence of asthma is alarmingly high, ranking in the 91st percentile. This elevated rate of respiratory conditions underscores the need for improved infrastructure that could mitigate environmental factors contributing to such health issues. Similarly, heart disease prevalence is in the 93rd percentile, which is higher than the 90th percentile, and the area faces a notably low life expectancy, in the 98th percentile. These statistics indicate a severe burden of chronic health conditions exacerbated by socio-economic factors, including the high percentage of low-income households, ranked in the 97th percentile, which is far above the 65th percentile threshold. These health challenges are compounded by inadequate access to healthcare and healthy living conditions, making the proposed transportation improvements more critical. Housing conditions in these disadvantaged areas also reflect significant hardship. Crossroads Boulevard (Crossing ID 012128E) is marked by a high incidence of homes lacking indoor plumbing, ranked in the 93rd percentile, and lead paint prevalence at the 70th percentile. Such conditions not only affect residents' health but also their overall quality of life. The presence of low-income households in the 97th percentile further exacerbates these issues, highlighting the need for improved infrastructure that can address both safety and living conditions.

Crossing ID 012204V, located at West Eufaula Street, is in a disadvantaged community with complex socio-economic and environmental challenges. The area faces significant economic hardship, with residents falling in the 79th percentile for low income, indicating that a substantial portion of households earn below twice the federal poverty level. The community is in the 91st percentile for energy cost demonstrating the disproportionate share of income spent on utilities. There is also a great deal of housing issues in this area; lead paint exposure is in the 93rd percentile, and access to green spaces is in the 95th percentile. Additionally, the community' proximity to Risk Management Plan (RMP)

facilities places it in the 92nd percentile, indicating a high exposure to environmental hazards. These intersecting burdens highlight the urgent need for improvements at this crossing, which will contribute to improving the quality of life for residents in addition to improving transportation safety.

The South High Avenue crossing (Crossing ID 012125J) is situated in a community that has substantial health, workforce, and energy burden. Health disparities are particularly pronounced in this area, as evidenced by the high prevalence of chronic conditions. The share of residents with asthma is notably high, placing the community in the 95th percentile, which indicates severe health risks related to respiratory issues. The share of people with diabetes is in the 87th percentile with heart disease in the 83rd percentile. The community faces low life expectancy, ranking in the 97th percentile, which underscores the critical nature of these health challenges. Economic disadvantages exacerbate these health issues. The community ranks in the 97th percentile for low income, indicating that a significant portion of residents earn less than twice the federal poverty level, which exacerbates their overall socio-economic instability. This economic strain is mirrored in the high poverty rate. The community is in the 96th percentile for people who live at or below the federal poverty line. The median income is also quite low, ranking in the 90th percentile, which reflects a substantial economic disparity compared to the surrounding areas. Workforce development challenges are also evident, with 22% of residents over age 25 lacking a high school diploma, placing the area in the 97th percentile for low educational attainment. In terms of legacy pollution, the area exhibits significant environmental burdens. The proximity to RMP facilities places the community in the 93rd percentile, highlighting a high exposure to potential hazardous environmental risks. Although the count of hazardous waste facilities within 5 kilometers is in the 63rd percentile, not reaching the top 90th percentile, the community's proximity to RMP facilities suggests substantial environmental concerns. The area also falls in the 79th percentile for proximity to Superfund sites, indicating an elevated risk of exposure to hazardous substances.

Crossing ID 012124C, located on South-East 44th Street, is a community facing severe health, economic, housing, and workforce development challenges. The community has high rates of chronic conditions and low life expectancy, with asthma being the most prevalent. Diabetes affects 85% of adults, while heart disease impacts 82%. The community's life expectancy is 99th percentile, highlighting the severe health disparities experienced by residents. Economically, the community ranks in the 98th percentile for low income, indicating a large segment of the population lives on incomes below twice the federal poverty level. Housing issues include historic underinvestment in home loans and high housing costs, with housing insecurity remaining significant. The inadequate green space and housing conditions further contribute to challenging living conditions. Workforce development barriers are evident, with high levels of linguistic isolation (ranking in the 98th percentile) affecting residents' access to job opportunities and essential services. The area experiences a high poverty rate, with the community in the 93rd percentile for residents living at or below the federal poverty level. Educational attainment is a concern, with 44% of adults lacking a high school diploma, placing the area above the 10% threshold.

These examples represent only a subset of the crossings affected by various categories of disadvantage. The data reveals a broader pattern of overlapping burdens affecting many more crossings across the region. Significantly, 9 of the 15 crossings with a documented history of accidents are located in these disadvantaged communities, further compounding the risks these residents face daily.

The master plan will look to address the RTA region's transportation insecurity by improving the local roadway network, lowering VMTs, and improving pedestrian and bicycle access within the region, which will contribute to improvements in air quality conditions in these disadvantaged communities and a possible reduction in air quality-related diseases. The Project will also improve safety for pedestrians and motorists by reducing the risk of collisions, enhancing traffic flow, and providing safer rail crossings. The proposed solutions will look to save lives, reduce the risk of future crashes, and improve the overall transportation experience in affected areas. Enhancing the overall quality of life and economic well-being within the RTA region is especially important for the affected disadvantaged populations.

As part of the master plan development, ODOT will ensure impact to disadvantaged communities is a prioritization factor. ODOT will look to maximize community input from disadvantaged communities by providing a variety of community outreach methods that are easily accessible by public transportation in

places throughout the community, supplementing virtual public engagement. In-person events will be ADA accessible and offer translators as needed, depending on the demographic makeup of a community. Events will be held at a variety of times, to accommodate a variety of working schedules.

Workforce Development, Job Quality, and Wealth Creation

While the Project will not directly support workforce development, it will prioritize grade-crossing projects which can be programmed for further development. The construction projects will lead to good-paying jobs through ODOT’s workforce development programs.

ODOT is firmly dedicated to creating good-paying, safe jobs with a free and fair choice to join a union, promoting investments in high-quality workforce development programs, adopting local and economic hiring preferences for the ODOT workforce, and promoting local inclusive economic and entrepreneurship programs.

As of September 2023, the average hourly pay for highway construction jobs in the Oklahoma City metro area was \$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. Women Accessing Non-Traditional Trade (WANTT), a local nonprofit, also encourages 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 USDOT at 23 CFR 230, Subpart A, Equal Employment Opportunity on Federal and Federal aid Construction Contracts. It is ODOT’s policy 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.

Furthermore, the State of Oklahoma has [103 registered apprenticeship programs](#), overseen by the U.S. Department of Labor, which are pivotal to enhancing workforce skills, particularly in key sectors like transportation. The actualization of the solutions identified within the master plan will look to leverage and benefit from the state’s workforce development initiatives, particularly in terms of employing skilled workers from apprenticeship programs and contributing to local economic growth through job creation and infrastructure improvement.

12. PROJECT IMPLEMENTATION AND MANAGEMENT

12.1 Project Contracting Arrangements and Contract Oversight

ODOT has the technical capacity and expertise to successfully complete the Project. ODOT has been awarded 15 federal grants since 2016 and is familiar with developing grant agreements, administering funding, and meeting reporting requirements. ODOT will designate experienced staff to provide contract oversight and manage all aspects of the planning study to ensure that the project meets all federal requirements while keeping the public informed of the project’s progress. ODOT’s Contract Compliance Division oversees the Department’s DBE program and ensures that ODOT and all its consultants and contractors comply with applicable Civil Rights requirements.

12.2 Change-Order Management

Change-order management will be handled by ODOT. All change orders will require formal approval from leadership and the FRA as necessary. Once approved by all necessary parties, written approval will be sent to RTA via email.

12.3 Risk Management

ODOT will be responsible for risk management and has budgeted a 7.5% contingency for unexpected costs and budget overruns. ODOT will implement a RMP before the start of the Project to help anticipate potential risks and create a list of potential strategies.

12.4 Conformance to Federal Requirements for Reporting

ODOT will ensure timely fulfillment of all federal reporting requirements. ODOT has an experienced team administering federal grant funds and dedicated staff for grant reporting and tracking of performance measures. The Project Management Plan will include procedures for reporting and grant closeout milestones. ODOT has extensive experience completing projects with similar scope, including the [I-35 corridor study](#).

12.5 Plan to Employ Small Businesses

ODOT has a robust DBE program and local hiring policy. ODOT serves as the Unified Certification Program (UCP) for the State of Oklahoma, providing a one-stop shop where disadvantaged businesses that meet the DBE certification requirements and become certified are eligible to be used to meet the DBE goal requirements on any project with USDOT funding. ODOT's 2023 to 2025 Triennial DBE goal is 16.0%, and efforts to promote the program resulted in the FY 2023 goal attainment of 17.33%. Total dollars to DBEs increased almost 40% from 2022 to 2023. ODOT offers DBE Supportive Services to help certified DBE firms in Oklahoma develop into self-sufficient businesses, capable of competing on federally funded highway projects.

The ODOT DBE Program and the UCP ensure adherence to 49 CFR 26, which outlines regulations for DBE participation. Both consultants and construction contractors are obligated to fulfill their stated DBE commitments. Initiatives such as ODOT's On-Boarding Program provide valuable resources to DBEs, small businesses, and women-owned businesses. In support of DBE firms, ODOT incorporates strategies for nondiscrimination and actively promotes local DBE firms in state contracts, adhering to Oklahoma law that requires justifying the selection of non-local companies unless they present the lowest bid. Oklahoma's project-level goal setting is data-driven, using current DBE certification information and historical DBE pay item performance to identify the project goal achievement possibility.