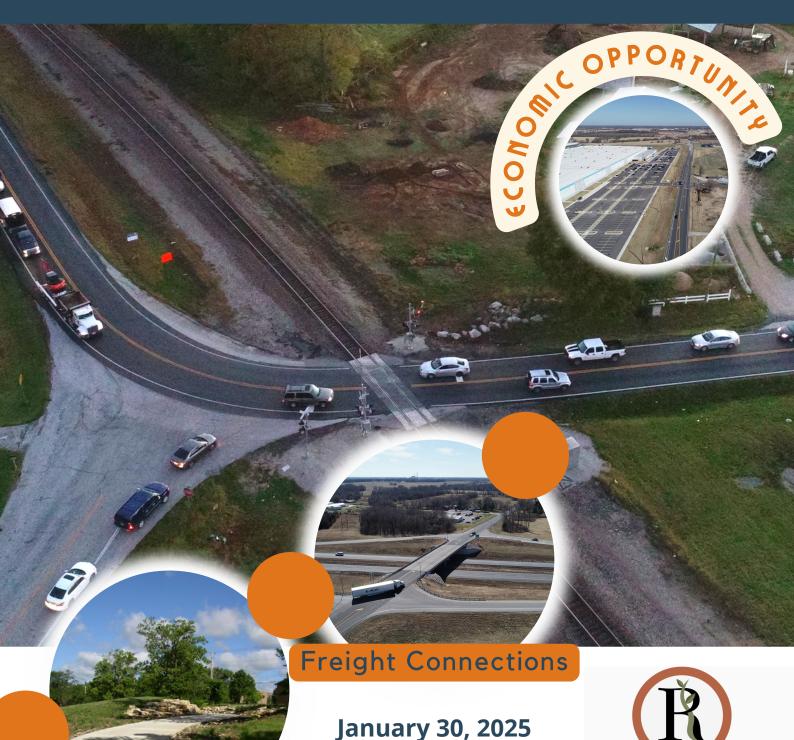
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Pedestrian Safety

US DEPARTMENT OF TRANSPORTATION BETTER UTILIZING INVESTMENTS TO LEVERAGE DEVELOPMENT (BUILD) 2025



**Merit Criteria** 







# **HIGHWAY MM: CORRIDOR OF OPPORTUNITY**

# MERIT CRITERIA

The Highway MM: *Corridor of Opportunity* creates mindful improvements to transportation infrastructure while creating a safe facility for freight and transportation across the eight domains of the NOFO merit criteria. The overall purpose is to provide a **regionally significant project** that reduces safety risks for motorized and non-motorized travelers, meet capacity demands from economic growth, provides connectivity to the City of Republic and surrounding rural areas, and provides transportation to new schools and job centers.

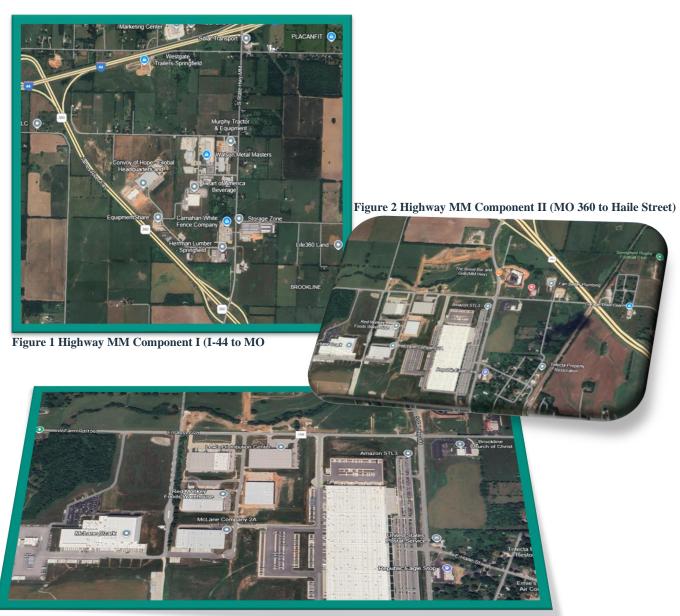


Figure 3 Close up of Highway MM Component II (MO 360 to Haile

BUILD - Highway MM: Corridor of Opportunity - Merit Criteria

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#### **SAFETY**

The *Corridor of Opportunity* links an Enhanced Enterprise Zone to I-44 and US Highway 60. Project improvements will reduce fatalities/serious injuries, improve emergency response times, protect motorized and non-motorized travelers, and achieve goals set out in the 2022 National Roadway Safety Strategy.

# **Protect Non-motorized Travelers from Safety Risks**

This project will remove pedestrian/vehicle conflicts by removing pedestrians from the roadway and creating a connected sidewalk/trail network to allow pedestrians to walk along the corridor. The current "No Build" corridor has no sidewalks, creating an inhospitable walking environment. Most of the road is a rural two-lane open shoulder design. Nearly 8% of pedestrian related deaths are associated with "walking along the roadway". According to FHWA up to 88% of crashes associated with a pedestrian walking along the road can be prevented by installing sidewalk. <sup>1</sup> In 2020, there was a pedestrian death near the MO 360 on-ramp. By installing these improvements, partners aim to prevent a repeat of that tragedy.

Public feedback requested a continuous sidewalk from US 60 to MO 360, so this request was integrated into the design. Adding 5-foot ADA sidewalks to the corridor will provide pedestrian safety. Currently, bicyclists must share one lane with semi-trucks and commuter vehicles with no dedicated bicycle lane or passing lane because no bicycle accommodations exist along the route. Where sidewalk is not available, there will be paved shoulders. FHWA notes that paved shoulders reduce head on crashes by 15%-75%, sideswipe crashes by 15-41%, fixed object crashes by 29%-49%, and pedestrian incidents by 71%. <sup>2</sup>

#### **Reduce Fatalities and/or Serious Injuries**

Presently, there are 87 bus trips daily during the school year along Hwy MM, serving Republic High School's 1,500 students. The construction of an 800-student intermediate school along the new MM alignment will increase the number of students traveling daily along Hwy MM.

#### **Emergency Response**

90% of fire response calls need a 5 minutes and 20 seconds or less response time according to targets set by the National Fire Protection Association. To meet this response goal, Fire Department's enhance internal processes and strategically locate fire stations. By widening, Hwy MM and further enhancing the route, Brookline Fire District, Republic Fire Station Two, and the Cox Ambulance District north of US 60 will have faster response times to industrial, commercial, retail, and residential developments along Hwy MM. Additionally, Hwy MM and its railroad overpass, scheduled for 2025/2026 construction, will create a crucial north south passage that does not require personnel to reroute during an emergency due to a train. Hwy MM improvements will reduce response times and assist public safety staff responding to accidents on Interstate 44, MO 360, and US 60.

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<sup>&</sup>lt;sup>1</sup> FHWA's "Safety Benefits of Walkways, Sidewalks, and Paved Shoulders page 3

<sup>&</sup>lt;sup>2</sup> FHWA's "Safety Benefits of Walkways, Sidewalks, and Paved Shoulders page 5







#### **Protect Motorized Travelers from Safety Risk**



The "No Build" original segment of Hwy MM is a two-lane undivided roadway. The "No Build" scenario may be appropriate if Hwy MM was only a growing industrial zone or a corridor seeing more residential traffic. However, the City of Republic is seeing both an increase in commercial/industrial uses and residential dwellings; therefore, there must be four lanes of traffic to accommodate truck and private vehicle use. The posted speed limit is currently 55 mph

and there are multiple traffic entry points where a large truck may pull out in front of an individual driving to Springfield for work. One example is Magellan Midstream Partners L.P., a fuel tank service located along the corridor. Tankers pull in and out of the regional fuel facility daily and travel up Hwy MM to get on the MO 360 or I-44 on ramps.

An additional lane will allow traffic to proceed and create a secondary lane for semi-truck traffic

generated from the Amazon Fulfillment Center, Convoy of Hope Worldwide Headquarters, McLane Ozark, and others that have built along the corridor in the past ten years. Large truck traffic will continue to increase; Garton Business Park is actively marketed to developers and tax abatement incentives will drive further development. It is already difficult to turn south onto Hwy MM from Iron Grain Residential Development, Branco, First Baptist Church Brookline, and other developments on the east side of the road. Widening the road, the construction of a median, and other planned improvements will facilitate the safe coexistence of truck and residential traffic. A full access intersection will be installed at Hwy MM and Carnahan Street to address feedback from the December 2024 public hearing.

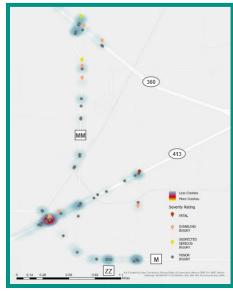


Figure 4 Crash Heat Map 2015-2019

Amazon invested in roadway safety by widening the area to three-lanes and adding a signalized intersection in front of its facility. This project will fill the need for expanded widening from two-lanes to a divided four-lane arterial with raised medians. Proposed improvements will accommodate the 2050 "No Build" vehicle AADT of 23,012 to 31,330 to safely maneuver the corridor. MoDOT commissioned a traffic study in 2022, and that study projected the AADT of 31,330 in 2050. For the purposes of the grant application, the OTO is utilizing the conservative 23,012 AADT from the Travel Demand Model update and has utilized that data in the BCA. Between 2017 and 2023 there were 332 total crashes. A fatality in 2022 was in the same location as a 2014 fatality, the latter is not reflected in the seven-year parameter of the benefit cost analysis.

There are sharp curves, narrow two-foot shoulders and rumble stripes throughout much of the corridor. This contributes to deficient space for errant vehicle recovery. A minimum of 22-feet of clear zone will be included in the project. Clear zones are recommended by FHWA because they















increase the likelihood that a road departure results in a safe recovery rather than a crash. The "Build Scenario" will have turn lanes to allow greater space for deceleration and vehicle storage. This will reduce the high proportion of rear end crashes related to congestion.

# **National Roadway Safety Strategy Plan Enhancements**

This project incorporates several key safety countermeasures for safer roads from the National Roadway Safety Strategy Plan. The project will lower the posted speed from 55 mph to 45 mph to promote safer passage and reduce serious injury crashes and fatalities. Studies have shown that the built environment has a greater impact on drive speeds than posted limits, so the project incorporates proven safety countermeasures such as raised medians, a wider clear zone, and use of pedestrian walkways such as sidewalks.



Figure 5 Highway MM along Magellan Midstream Partners

#### Lighting

LED lighting will be installed at intersections and medians to help pedestrians safely traverse the corridor and cross at intersections. Lighting is a proven safety countermeasure and research indicates that continuous lighting on rural and urban highways has an established safety benefit for motorized vehicles.

#### Pedestrian Crosswalk

There are planned pedestrian crosswalks with signals at Haile Street near the Amazon fulfilment facility and at the Iron Grain Mixed-Use complex. This provides a safe connection across Hwy MM for the Amazon workers and individuals living in adjacent mixed-use housing to cross the road to jobs.

Overall there is a positive **Safety Benefit Return** on Investment of \$43,005,038 illustrating the high safety benefits of improvements to the corridor.



#### **ENVIRONMENTAL SUSTAINABILITY**

This project achieves Environmental Sustainability through emissions reductions, improving traffic efficiency through congestion reduction, improving resilience, efficient land use, and supporting water quality. The project's positive Environmental Return on Investment is \$2,844,597 in CO2 Emission Reduction and \$578,358 in Non-CO2 Emission Reductions.

# Reduce Transportation-Related Air Pollution and Greenhouse Gas Emissions

Due to existing and known planned developments, traffic is expected to increase significantly along the corridor. Without improvements to the existing network, congestion along the roadway will mean increased idling and contributions to ozone-forming and greenhouse gas emissions. From nearing non-attainment for ozone in 2007 with a design value of 77 ppb, the current 2020-2023 quality assured design

5.14 US SHORT TONS

REDUCED ANNUALLY

\* \* \* \* \* \*

PAGE 4











value is 66 ppb. The Ozarks Transportation Organization maintains a Congestion Management Process and an Operations Subcommittee to collaborate with members such as the City of Republic and partners like MoDOT, in order to identify causes of congestion and to recommend projects that reduce idling and other emissions-inducing traffic concerns. Additionally, the region has consistently remained below the standards for PM<sub>2.5</sub> for both 24-hour and annual measures and is expected to remain in attainment with the newly strengthened PM standard.

Project traffic improvements will support reduction of idling along the corridor. The project, improves level of service (LOS) and travel times, from an LOS F to an E/D for the segment from I-44 to MO 360. There are 213,250 annual hours of travel time savings in the 2050 "Build Scenario". Given projected traffic through this corridor, these improvements will contribute to the reduction of ozone-causing emissions, as well as PM<sub>2.5</sub> and greenhouse gas emissions from CO<sub>2</sub>. This project mitigates the increased emissions that would arise from a "No-Build" scenario. Highway MM has several sites available for railroad spurs. As cited by the Army Corps of Engineers, one 100-car train is the equivalent of 384 trucks. This will promote the use of rail for multi-state transportation of freight.

#### **Resiliency**

Resilience is crucial given Missouri's varied weather and potential for natural and man-made disasters. Hwy MM, linking I-44, MO 360, and US 60, is vital for detours or evacuations. The "No Build Scenario" is projected to have 179,797 annual hours of delay in 2028 and as much as 331,668 annual hours of delay in 2050. The no-build scenario level of congestion greatly diminishes the effectiveness of Hwy MM for detours, compared to the opportunity this improvement provides. Increasing the capacity of this roadway from 14,000 vehicles per day to 31,600, allows this route to relieve congestion from these other corridors. The build scenario is 35% of the no-build delay.

#### Transportation Efficient Land Use and Design while Reducing Vehicle Miles Traveled

This project aims to enhance the live-work dynamic and reduce single-occupancy vehicle use by accommodating the growth of multi-family housing and employment centers along this corridor, as well as in Republic and Springfield, continuing a pattern of compact and contiguous development. The addition of sidewalks that connect to trails supports active transportation, benefiting residents, including those of a new mixed-use development of nearly 2,000 units, employers and workers, and over 800 students of a new intermediate school. These active transportation components are estimated to attract at least 150 sidewalk users. Without the project, residents along the corridor would have to risk an unsafe walking environment.

# <u>Avoid Adverse Environmental Impacts to Air or Water Quality, Wetlands, or Endangered</u> Species

The project is *designed to mitigate environmental concerns*, in addition to improvements that will create environmental benefits. The NEPA process reviews the various aspects of an environmental review and addresses a variety of impacts. Specific environmental impacts are included within the Project Readiness and Environmental Risk discussions of this application, but minimal impact is expected. The project has no areas of 100-year floodplain or regulatory floodway. Both project segments are covered by the MoDOT State Operating Permit from

BUILD - Highway MM: Corridor of Opportunity - Merit Criteria

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Missouri DNR, thus a project-specific permit will not be required. The project will include temporary and permanent BMPs. The entire project area has no known hazardous waste sites. There are no mapped wetlands. To limit noise impacts, construction will be limited, to the extent possible, to Monday through Friday, during normal working hours.

# Incorporate Nature-Based Solutions or Natural Infrastructure with the Use of Native Plants

Native grasses will be employed for roadside vegetation, in accordance with the USDOT "Pollinators and Roadsides: Best Management Practices for Managers and Decision Makers" and in consultation with Missouri Department of Conservation (MDC). Salt tolerant plants, especially, will be incorporated, as that will help them thrive along the roadway. Native plants in the area have already been identified by MDC and will be among those considered with this project, supporting water quality, pollinators, and other wildlife.

Plant type	Common name	Botanical name
Grass	Broom sedge	Andropogon virginicus
Grass	Little bluestem	Schizachyrium scoparium
Grass	Indian grass	Sorghastrum nutans
Forb	Butterfly milkweed	Asclepias tuberosa
Forb	Purple milkweed	Asclepias purpurascens
Forb	Blue false indigo	Baptisia australis
Forb	Cream wild indigo	Baptisia bractea
Forb	Pale purple coneflower	Echinacea pallida
Forb	Rough blazing star	Liatris aspera

**Table 1 Native Grasses** 



#### QUALITY OF LIFE

Hwy MM is a part of a continuous north to south travel route that runs from MO 266 near the regional airport to US 60. The development of this corridor is of regional importance. How this route develops will likely have a profound impact on socio-economic outcomes in the region. Republic and Hwy MM with the connections to northern Springfield through I-44, center Springfield through US 60, and Southern Springfield through MO 360 are somewhat uniquely positioned to offer accessible quality jobs to the region. The quality jobs along Hwy MM serve

those living in Springfield's low-income neighborhoods, as well as those living in small rural communities such as Chesapeake, Halltown, Plano, or Elwood.

The improvements proposed along the Opportunity Corridor are mixed-use and allow for the coexistence of industrial, retail, educational, recreational, and multifamily developments. Hwy MM's development will enhance Republic's role as

BUILD Grant
Persistent Poverty Areas

Republic Persistent Poverty Areas

Republic Persistent Poverty Areas

Figure 6 Persistent Poverty Areas

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employment center in the region. Republic has the capacity to serve the local workforce along Hwy MM with multi-family housing opportunities. Iron Grain, Stone Creek, and 60 West housing developments exist along the Opportunity Corridor. Republic has seen significant investments in multifamily housing along the Hwy MM: *Corridor of Opportunity* for those that would prefer to access affordable housing in the town where their employer is located. Those















living in those multi-family housing options will have access to these quality of life features along Hwy MM.

# **Increase Affordable Transportation Choices**

The City of Republic advocates for providing sidewalks and trail systems allowing for alternative modes of transportation. People can move to the project area and have mode choices. It will prevent safety conflicts between pedestrians, bicycles, and trucks. The planned sidewalks along Hwy MM will connect into the Hwy MM Trail. There are planned trail connections from Hwy M (Republic Road near project) to the rest of the metropolitan planning trail system. The trail along Hwy MM will eventually

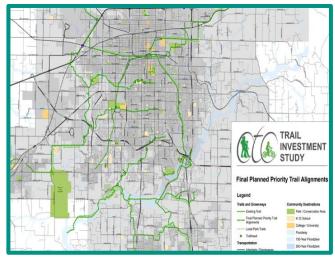


Figure 7 OTO Proposed Trail Map

connect into this trail system creating a travel network down to the Wilson's Creek National Battlefield (with 200,000 visitors annually) and into Springfield. The OTO Trail Dashboard is here: <a href="https://www.ozarkstransportation.org/what-we-do/bikeped">https://www.ozarkstransportation.org/what-we-do/bikeped</a>.

Planned improvements to the corridor can greatly impact the traveling ability of current residents and future residents moving to the area. There are 714 residential units within two miles and **5,678** residential units planned. The sidewalk will improve *access to daily destinations*, such as jobs (Amazon, McLane, Convoy of Hope, Walmart Pharmacy Distribution Center, retail and restaurants), schools, shopping and restaurants (multiple along the corridor), health (nearby Cox Health facility), and recreation (new Republic Parks Sports Complex and Brookline Park).

# <u>Coordinate and Integrate Land Use, Affordable Housing, and Transportation Planning to Create Livable Communities and Expand Travel Choice</u>

This infill growth between Republic and Springfield will allow residents to access services closer

to home and provide for more compact travel patterns. The corridor has two planned mixed-use developments that include a combination of commercial retail and residential lots in the form of both apartments and single-family homes, providing opportunities for employees along the economic corridor to relocate closer to jobs. The City of Republic has seen 140%

Year	Single- Family Homes	Multi- Family Dwellings	Commercial GFA (SF)	Industrial GFA (SF)
2019	154	0	128,977	108,425
2020	163	2	19,097	1,652,384
2021	233	48	23,306	490,000
2022	208	0	141,100	208,000
2023	261	430	342,328	400,000

 $Table\ 2\ Projected\ Development, per\ approved\ permitting/development$ 

housing growth and 3.9% population growth in the past 5 years compared to the previous 5 years. There is strong job growth in the Springfield metropolitan area, but housing shortfalls for















those workers. (Economic Leadership Report in Appendix)

A major developer has started a \$65 million investment in the area, bringing a mixed-use housing development and retail area directly across from the Amazon Fulfillment Center and directly next to Hwy MM and Haile Street. The investment in the area will provide apartments for individuals who would like to work at Amazon and other surrounding businesses and provide for them to do so without major transportation expenses or environmental impact. There are



Figure 8 Iron Grain Mixed District Rendering and Amazon Facility

pedestrian crossing improvements included in this project at Haile St and Hwy MM to allow the 1,700 Amazon employees to safely cross the street to this and other retail across from Amazon.



Figure 9 Stone Creek Falls Rendering

The addition of sidewalk and pedestrian accommodations to the MO 360 bridge will provide for a walkable route to more job opportunities. Located further south along Hwy MM and next to the new road alignment will be another mixed-use housing and retail development. Stone Creek Falls, a 92-acre development, will have sidewalks and a trail connection to the new Hwy MM alignment. This is located near the newly announced intermediate school. The connectivity of private and public active

transportation networks, exponentially increases the benefits of either system on its own.

The City of Republic purchased land in 2021 to build a 136-acre Park/Sports Complex with up to 10 baseball-softball fields, 8 soccer fields, 12 pickleball courts, a nature center, outdoor classrooms, playgrounds, and outdoor walking trails with an estimated construction cost of \$40 million. The future park is located, just off MO 360. The planned improvement will allow for multimodal access from adjacent mixed use developments.

The sidewalks would provide connections to Brookline Park, another existing City Park, located off Hwy MM. Republic regularly hosts major regional and community events at Brookline Park such as the "Got Mud? Run." This is an annual event that draws in participants from twenty-seven cities and three states. These park facilities will continue to generate AADT along the corridor and will serve to draw tourism from outside the Republic area.



Figure 10 "Got Mud? Run" Participants

The Republic School District purchased a 78-acre tract adjacent to the new road alignment and across from the planned Stone Creek Housing Development. Project sidewalk along Hwy MM













will connect into a pedestrian underpass that will allow children to safely walk to the 800-student intermediate school.

The **Health Benefit** seen from the increased mobility is \$6,783,785 and \$1,496,918 in Amenity **Benefits** based on a projection of 200 trail walkers and 150 sidewalk walkers a day. The numbers of walkers and bicyclists that would utilize the trail to go to the new sports complex, school, and mixed used housing developments are likely to be much higher.



#### MOBILITY AND COMMUNITY CONNECTIVITY

This project provides an opportunity to bring in a planned multi-modal system of travel to Republic, which will benefit the area for many years to come as it transitions to an urban area. This project removes a roadway barrier for connectivity by creating a safer connected corridor.

# <u>Improve System-wide Connectivity with Access to</u> Transit

The Amazon Fulfillment Center constructed a bus terminal for a future route for the City Utilities Bus Transit System. Though currently unfunded, once in service, this would be the first transit service outside the City of Springfield city limits. It would provide access via transit to major employers for individuals located in Areas of Persistent Poverty areas of Springfield. The City Utilities of Springfield conducted a study *ConnectSGF* and proposed a regional transit route to the City of Republic that would utilize the

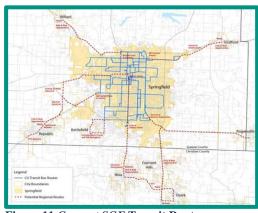


Figure 11 Connect SGF Transit Routes

"Build Scenario" Hwy MM Corridor to connect Springfield to Republic.

# <u>Implement Plans, Based on Community Participation and Data, that Addresses Gaps</u> Identified in the Existing Network

Transit planning and trail planning have been considered through *ConnectSGF* and the Ozarks Transportation's *Towards a Regional Trail Plan* <a href="https://www.ozarkstransportation.org/highway-mm-corridor-build-grant-2025">https://www.ozarkstransportation.org/highway-mm-corridor-build-grant-2025</a>. *ConnectSGF* considers the regional transit system and includes a proposed Hwy MM route. *Towards a Regional Trail Plan* outlines a regional connected trail system and calls for improved pedestrian connections. The project is also included in the Metropolitan Transportation Plan *Destination 2045* Constrained Project List as a principle arterial. The community voiced the need for sidewalks at the Hwy MM public meeting in 2022.

#### **Increasing Accessible Transportation Choices**

During the development of this area, the need for ADA accommodation was considered. There will be an ADA compliant 5-foot sidewalk that runs along one side of the corridor.

Removing the congestion on the two- and three-lane segments and providing a safe corridor will enhance the quality of life for commuters. Adding pedestrian travel ways removes barriers that are currently present in the "No Build".

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#### ECONOMIC COMPETITIVENESS AND OPPORTUNITY

# **Improve Travel Time Reliability**

Without the project intervention, in the "No Build" scenario, the level of service is expected to be E/F using passenger car equivalent AADT by 2027. Based on the current capacity for rural two-lane roads (14,200 AADT). By 2050, the expected "No Build" AADT is 15,920. Without

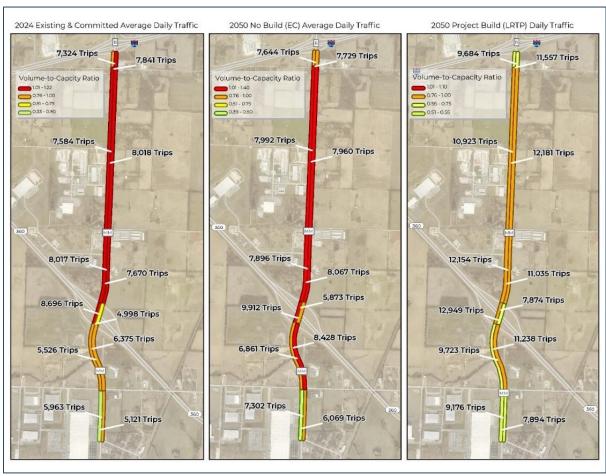


Figure 12 Travel Time Reliability Comparison "No Build" vs. "Build"

the roadway improvements, the "No Build" scenario would be over capacity and unserviceable. There will be congestion delays that affect personal drivers and businesses who rely on freight and delivery trucks. The "Build" scenario would improve travel time delay and capacity allowing the expected 31,330 AADT of the "Build" scenario. Reliability will be enhanced through the corridor's additional lanes and raised medians.

This quality enhancement found in the Travel Time Benefits from the BCA will enhance commuters going to jobs along the corridor, trucks hauling regional goods from I-44 or US 60, and commuters that live in the outlying communities that work and shop in Republic. Overall













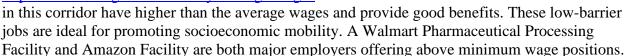
vehicular travelers along the corridor will see significant **Travel Time Savings** of \$134,409,325, reducing transportation costs for supply chain companies and commuters.

# **Promote Wealth Building**

Greene County currently has a high percentage of low wage earners. Greene County average wage was \$25.40 in 2022 below the Missouri average of \$28.92







The impact of Amazon can lead to a poverty rate decrease of 2.4 to 3% per comparative studies. In addition, median household income increased by 1.8 to 2.2%<sup>3</sup> A study argues that Amazon's above minimum wage at the time of the Study of \$14 led to a 4.5% increase in average hourly wage among employers in the same local market and communing zone. The larger retailers influence wages through setting norms for the area or the "lighthouse effect". <sup>4</sup>



Housing is filling in between this area and Springfield, giving people an opportunity to improve their financial situations by locating close to quality jobs. Multi-family apartments are locating close to these job centers, as well as development of a new City Park Complex and walking trails, lending to an environment where community can develop. This area is only 2.96 miles to already existing grocery and retail centers.

Republic has been growing at a rate of 3.9%. The City is planning now for this growth and is taking preemptive measures to create a community through planned and deliberate transportation decisions, including this project.

Highway MM Employers	Industry	Local or	Number of				
Past 10-Years		Regional	Employees				
Amazon	Distribution	Regional	1,750				
McLane Company	Grocery Distribution	Regional	500				
	Food and Beverage						
Red Monkey	Manufacturing	Regional	350				
Herman Lumber Company	Retail/Distribution	Regional	50				
Convoy of Hope World							
Headquarters and Distribution	Humanitarian Aid and						
Center	Distribution Center	Worldwide	250				
Ashley Furniture Warehouse	Warehouse/Distribution	Regional	20				
Mercy /ROI	Health Care	Regional	90				
Magellan Midstream Partners LP	Fuel	Regional	12				
Schwan's Home Services	Food Distribution	Regional	10				
Heart of America Beverage Co.	Beverage Distribution	Regional	190				
Watson Metal Masters	Industrial/Distribution	Regional	99				
<b>Everything Kitchens Headquarters</b>	Industrial/Distribution	Regional	50				
Total Employment	3,371						
Table 2 Employment by the Numbers Doct 10 Veors							

Table 3 Employment by the Numbers Past 10 Years

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<sup>&</sup>lt;sup>3</sup> The Impact of Amazon Facilities on Local Economies by Vikram Pathania, Serguei Netessine:: SSRN

<sup>&</sup>lt;sup>4</sup> Spillover Effects from Voluntary Employer Minimum Wages by Ellora Derenoncourt, Clemens Noelke, David Weil :: SSRN







# **Promote Long-Term Economic Growth and Other Broader Economic and Fiscal Benefits**

The City of Republic, in partnership with Greene County and the Republic Area Chamber of Commerce, has established an Enhanced Enterprise Zone (EEZ) which offers the incentives of local property tax abatement and state tax credits to new and expanding businesses that qualify. The EEZ boundary includes the area adjacent to Hwy MM between Interstate 44 and US 60.

Economic development will continue with the planned investments in infrastructure along the corridor. The corridor provides immediate access to Interstate 44, MO 360, and US 60 and provides business enterprises with quick, easy, and safe access to most of the Midwest's major cities and metropolitan areas.

Amazon located a 1.3 million-square-foot warehouse and distribution facility along the Corridor. This freight-intensive facility is critical to meeting Missouri's demand for goods and depends on a safe/efficient roadway per the 2022 MoDOT State Freight and Rail Plan https://www.ozarkstransportation.org/highway-mm-corridor-build-grant-2025.

Growth will continue, quality transportation infrastructure is needed. There are hundreds of acres of developable land that is suitable for industrial and commercial uses with the potential to employ thousands of workers across numerous rural counties in Southwest Missouri, most of which are designated as "economically distressed" along the corridor. Presently under development, adjacent to the corridor are 844 acres (565 industrial, 36 manufacturing, 118 commercial, and 47 retail). With a lowdensity build-out estimate of 0.19 percent an acre, a footprint of 207 acres built out, and a factor of 1,487 square ft per job, there could be up to 6,077 jobs once full build out of the pending developments are completed. 3,000 jobs is the conservative number currently projected. More concentrated development would increase that figure. Continued expansion of residential developments in the area could reduce urban sprawl and create a unique live-work industrial/rural dynamic that fits with the Ozark spirit.

The City of Republic is investing \$150 million in water and wastewater infrastructure in the next 5 years to help the



Figure 13 Development Map













area develop. Without the "Build Scenario," development will not be able to reach its full potential due to roadway limitations.

# **Improve Movement of Goods**

The improvements to MM will provide a great alternative for the flow of freight and goods necessary to the regional supply chain. Freight can use Hwy MM to go directly from US 60, a 2,655-mile (in total) east/west route which runs the entire length of Missouri connecting Oklahoma to Kentucky), to Interstate 44, a critical Tier I high priority freight corridor, or to the Springfield-Branson National Airport.

Through the efforts of the Airport, and local US Customs office, Southwest Missouri is also a Foreign Trade Zone, a known catalyst for economic growth. Currently, 630 million tons of

freight valued at over \$1.7 billion dollars travel down US 60 and 1.3 billion tons of freight valued at \$3.7 billion travel through Interstate 44 (2022 MoDOT State Freight and Rail Plan) <a href="https://www.ozarkstransportation.org/highway-mm-corridor-build-grant-2025">https://www.ozarkstransportation.org/highway-mm-corridor-build-grant-2025</a>. The current "No Build" has two lanes and bottlenecks before MO 360 minimizing the incentive for semi-truck traffic coming from Main Street. Improvements could divert traffic from Highway N/Main Street (the historic and retail district of Republic) creating more walkability in the area.





#### STATE OF GOOD REPAIR

The Hwy MM corridor improvements will significantly upgrade the highway and rail system that runs through the City of Republic. Currently the road is under a seven-year asphalt maintenance schedule. The upcoming maintenance would be postponed, leading to additional cost savings.

## Create New Infrastructure that will be Maintained in a State of Good Repair

It will create a new infrastructure system that will connect a remote community to an urban zone. corridor will have a BCA service life of 20 years. In addition to the long service life of the overpass, the "Project Build" scenario will have capacity through 2046. The "No Build" scenario hit capacity in 2023 for a rural roadway. This new infrastructure will replace the maintenance needs that will be due on the existing and replaced assets.

#### Reduce Construction and Maintenance Burdens through Efficient, Well-Integrated Design

- The "No-Build" scenario has an O & M cost of \$15,146.55 per mile compared to "Project-Build" scenario's O & M cost of \$14,824.33 per mile.
- The new segment will offer long-term maintenance cost savings with the installation of LED bulbs in the street lighting along the corridor.

#### **Party Responsible for Maintenance**

MoDOT design standards will serve as the basis for design and the corridor will remain on the MoDOT transportation system for normal and routine maintenance.

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#### PARTNERSHIP AND COLLABORATION

#### **Collaborate with Public and/or Private Entities**

There have been private investments and partnerships leading up to the current project. Amazon invested approximately \$4 million with the three-lane segment and signals in front of its facility. Amazon is actively working to train and retain workers from underserved areas in Springfield, MO. Amazon has partnered with Missouri Job Center Ozark Region to conduct hiring events and assist job seekers. MoDOT is the lead agency on the project for design, clearances, and ROW.

# **Document Support from Local, Regional, or National Levels**

The project has received partial funding through the State of Missouri, utilizing federal MoDOT allocated STBG funding. Greene County, Missouri will contribute local funds to the project section from I-44 to MO 360. It's featured on the Ozarks Transportation Organization's STIP Priority List, adopted by the OTO Board of Directors as a high priority. Details and documentation are in the funding support appendix.

# **Engage Residents and Community-based Organizations to EnsureCommunities are Meaningfully integrated throughout Project Lifecycle**

In a 2021 Community Survey, the City of Republic gathered resident feedback highlighting the demand for enhanced connectivity and alternative transportation, such as sidewalks and trails. Additionally, public comments received by OTO in 2021 underscored safety concerns due to increased traffic, contributing to the decision to propose improvements for the corridor.

A public listening session was hosted by OTO and MoDOT at Republic Community Center on February 28, 2022, attracting over 200 participants. Feedback, predominantly positive, focused on safety enhancements, job opportunities, and improved multimodal infrastructure. Concerns raised are being addressed in the project's design phase, with MoDOT considering mitigation strategies, including concerns for pedestrian safety. The OTO has documented public input on the corridor over the last decade, detailed in the grant application's public engagement section.

MoDOT had a public meeting on April 2, 2024 on the Highway MM Realignment, directly adjacent to the proposed project. MoDOT conducted a Public Hearing December 2024 and received 31 public comments. Twenty-two of the comments were related to the median proposed at the Hwy MM and Carahan St. Intersection. MoDOT has revised the design to address the concerns and has added an open access intersection to accommodate a church and businesses on the corner.













# SCHOOL SECTION

#### **INNOVATION**

# **Innovative Technologies**

- Crowdsourced Data for Traffic Operations MoDOT is utilizing crowdsourcing to inform operations using third-party data gathered from apps such as Waze™ to alert travelers about delays, active field crews, assist with traffic incident management, and to identify issues such as potholes to help set road maintenance priorities.
- **LED Streetlights** The use of LED Streetlights will significantly reduce the long-term maintenance costs due to high efficiency and long-life expectancy when compared to high pressure sodium or mercury vapor streetlights. Additional benefits include a reduction in carbon emissions and the ability to direct light on specific areas, supporting the Dark Sky Initiative. They can be dimmed allowing for more flexibility in controlling light levels.

#### **Innovative Project Delivery**

# **Innovative Project Delivery components include:**

- **Post Award Value Engineering** A post-award value engineering (PAVE) workshop will be conducted during the construction phase of the project. The PAVE workshop will increase the number of approved value engineering change proposals (VECP) and practical design value engineering change proposals (PDVECP), improve contractor partnering, streamline VECP/PDVECP approval process, and improve core team constructability knowledge.
- **Best Value Procurement** MoDOT will follow a Best Value Procurement Process. Seeking quality and expertise will ensure successful and timely completion of the project.
- **Staged Construction** The new roadway will be constructed in a manner that will provide only minimal periods of disruption to motorists utilizing the existing roadway network. To the extent possible, the portion of the new roadway located outside of the existing roadway will be constructed first while traffic continues to utilize the existing roadway. The existing roadway will be used and widened to both sides from I-44 to MO 360.

## **Innovative Financing Components**

- Revenue resulting from recent increase to the fuel tax The Missouri Legislature approved Senate Bill 262, a Fuel Tax increase. The \$500 million in additional state revenue will result in a dedicated transportation revenue increase for the State Highway Fund.
- **Missouri Cost Share Program** –Interstate 44 to MO 360 was awarded partial funding through the Cost Share Program with federal STBG grant funds as well as City of Republic local match. This segment is programmed in the FY 2024 STIP for construction.





