

HIGHWAY MM: *CORRIDOR OF OPPORTUNITY*

PROJECT REQUIREMENTS



23 U.S.C. 173 RURAL

The Project will Generate Regional Economic, Mobility, or Safety Benefits



Mobility

The project will generate regional economic growth, mobility and safety benefits. Highway MM connects Interstate 44 with MO 360 and US 60. Hwy MM is a developing corridor with rapidly expanding manufacturing, construction, and warehouse employers. The project will provide for safety by turning a two-lane arterial into a divided four-lane with raised median facility. This will provide for motorized safety and manage the freight traffic along the corridor to accommodate and allow for future economic growth.

Economy

Hwy MM is experiencing poor levels of service and will quickly be unable to manage the growing increase in traffic. There are currently 844 acres under development along the corridor. This development of industrial, manufacturing, commercial, and retail businesses will provide a conservative 2,000 jobs to the area. This growth will not be able to continue if the road is not improved to handle the additional traffic.

Safety

The project will address the lack of adequate shoulders and pedestrian connections to increase mobility. The project will put in sidewalks along the corridor, a pedestrian crosswalk and signal, and widen the bridge over MO 360 to add the pedestrian accommodations.

The Project will be Cost Effective

This project is cost effective with a 2.54 BCA over the required 1.



Benefit-Cost Analysis Summary	
Benefits	Discounted
Travel Time Savings	\$ 9,484,569
Safety	\$ 41,750,428
Emissions Reduction	
Non-CO2 Emissions Reduction	\$ 1,903,619
CO2 Emissions Reduction	\$ 7,070,468
Operations & Maintenance Costs	\$ (1,220,028)
Other Benefits - Amenity Benefits	\$ 290,180
Other Benefits - Health Benefits	\$ 4,000,982
Residual Costs	\$ 352,671
Total Benefits	\$ 63,872,704
Total Project Costs	\$ 25,173,283
Benefit Cost Ratio	2.54

The main benefits are seen through the safety benefits of **\$41,750,428**, travel time savings of **\$9,484,569**, and emissions reductions of **\$8,974,087**.

The Project will Contribute to 1 or More of the National Goals Described under 23 U.S.C. § 150

Goal 1 Safety (to achieve a significant reduction in traffic fatalities and serious injuries on all public roads)

Hwy MM: Corridor of Opportunity will reduce fatalities/serious injuries, protect motorized and non-motorized travelers. The project segment has had 102 crashes within 5-years. There have been 17 serious crashes at MO 360 bridge and Hwy MM and ranks fifth in the top five crash locations in Republic. The project will provide a widened four-lane primary arterial with sidewalks, pedestrian crossing and signals, bridge widening to allow for pedestrian/bicycle access, reduced speeds to 45 mph and LED lighting.

The project turns a two-lane arterial into a divided four-lane with raised median facility. Improvements will enable the corridor to more safely absorb the increased traffic flow caused by population growth, industrial growth, and the realignment of Hwy MM scheduled for completion 2025. Hwy MM from Haile Street to I-44 will attract freight traffic that will utilize the new Hwy MM intersection at US 60 to travel to I-44. 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 Hwy MM alignment will increase student



traffic along Hwy MM.

A **primary project** purpose is to remove pedestrians from the roadway and create a connected ADA 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. Partners on this project seek to prevent another incident like the 2020 pedestrian death near the MO 360 on-ramp in September 2020. Mixed-use housing and job centers are going in along the corridor. In addition to sidewalks a planned pedestrian crosswalk and signal are going in at Haile Street near the Amazon fulfillment facility and the Iron Grain Mixed-Use complex.

The “No Build” original segment of Hwy MM is a two-lane undivided roadway curving southwest. The posted speed limit is currently 55 mph. Magellan Midstream Partners L.P. fuel tanks are located along the corridor. Tankers pull in and out of the regional fuel facility daily.

The semi-truck traffic generated from the businesses have placed an increased safety risk on the road. Major commercial and industrial businesses are building along the corridor. Tax abatement incentives will drive further development and increase semi-truck traffic in the already fast developing area. This project will fill the need for expanded widening from two-lanes to a divided four-lane arterial with raised medians. Improvements will allow the “No Build” vehicle AADT of 23,857 in 2045 to safely maneuver the corridor. Between 2017 and 2023 there were 102 total crashes on this segment of Hwy MM

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.

Goal 2 Infrastructure Condition (to maintain the highway infrastructure asset system in a state of good repair)

MPDG Grant investment will create a new infrastructure system. The widened four-lane arterial will have a 20-year life and the expanded bridge will have a 50-year life. Asphalt maintenance that would be needed in the “No Build” seven-year cycle would be deferred.

Goal 3 Congestion Reduction (To achieve a significant reduction in congestion on the National Highway System)

In addition, the current “No Build” has two lanes, and bottlenecks before MO 360. 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 (13,000 AADT). By 2045, the expected “No Build” AADT is 23,857. Without the roadway improvements, there will be congestion delays that affect personal drivers and businesses who



rely on freight and delivery trucks. Reliability will be enhanced through the corridor's additional lanes and raised medians.

Goal 4 System Reliability (To improve the efficiency of the surface transportation system)

Most of the corridor is a two-lane facility. There is one three-lane section on Hwy MM that is expected to exceed capacity after 2027. This project increases system reliability by adding capacity to the roadway to manage the freight transports and commuters. It addresses both existing and future concerns due to growing traffic volumes within the corridor. Planned improvements for Hwy MM have been designed to accommodate freight and commuter traffic through 2048. The corridor is already experiencing poor levels of service and when current and future development is modeled, the route will quickly be unable to manage the growing demand. Sections are performing at a level of service (LOS) D or F (*Greene County Route MM/ZZ Study*). At the current state commuters look for ways around the corridor, putting additional stress and capacity on other system roads.

Goal 5 Freight Movement and Economic Vitality (To improve the National Highway Freight Network, strengthen the ability of rural communities to access national and international trade markets, and support economic development)

Highway MM connects two major freight corridors. Interstate 44 has been identified as a critical Tier I high priority freight corridor in the State of Missouri. Hwy MM also connects to US 60, a 2,655-mile (in total) east/west route which runs the entire length of Missouri connecting Oklahoma to Kentucky. It is also a major east-west route connecting Southwestern Arizona to the Atlantic Ocean in Virginia. These key corridors transport vital products to the whole nation. Missouri is a national crossroads of highway, rail, and pipeline networks. Freighters can go directly from US 60 on Hwy MM to the Springfield-Branson National Airport which has been designated as a Foreign Trade Zone. The corridor has access to the Burlington Northern Santa Fe (BNSF) Cherokee subdivision and serves a Magellan pipeline terminal.

Goal 6 Environmental Sustainability (To enhance the performance of the transportation system while protecting and enhancing the natural environment)

Environmental Sustainability is a **primary project purpose** and is achieved by reducing emissions, improving traffic efficiency through congestion reduction and alternative transportation, incorporating electrification, improving resilience, efficient land use, and supporting water quality. The project's positive Environmental Return on Investment is **\$7,070,468 in CO2 Emission Reduction and \$1,903,619 in Non-CO2 Emission Reductions**. It is estimated that 5.14 US Short Tons CO2 would be reduced annually.

The Project is Based on Preliminary Engineering

MoDOT commissioned two studies along the corridor to arrive at a long-term solution for the transportation issues along the corridor.

Greene County Route MM/ZZ Corridor Study was commissioned to address existing and future concerns due to growing traffic volumes within the Route MM and Route ZZ corridors. Multiple



alternatives were considered to address crash history and eliminate at-grade railroad crossings in the area.

Route MM/ZZ Corridor Study (James River Freeway to Route M) was commissioned to provide traffic analysis, modeling, and forecasting for staged project implementation of the conceptual Highway MM corridor realignment to meet projected forecasts.

The NEPA process has begun along the corridor and with CE2 clearance expected with completion of preliminary engineering. Engineering is estimated to be 35% complete on the project. Cost estimates have been prepared by MoDOT’s design team and are based on the preliminary engineering.

Environmental Services Checklist		
	Highway MM I-44 to MO 360	Highway MM MO 360 to Haile St
Request for Environmental Services Completed	12/7/2023	9/26/2023
Flood Zone	No	No
Within 4 miles of Airport	Yes	Yes
Farmland Impact	Cleared	Not Applicable
Floodplain/Regulatory Floodway	Not Applicable	Not Applicable
Land Disturbance/Stormwater	Not Applicable	Not Applicable
FEMA/SEMA Buyout	Not Applicable	Not Applicable
Socioeconomic Impact	Cleared	Cleared
Threatened & Endangered Species	Cleared	No Effect
Migratory Birds	Not Applicable	Not Applicable
Hazardous Waste Impact	Cleared	Cleared
Wetland Impact (Section 404/401)	Not Applicable	Not Applicable
Noise Impact	Cleared	Pending
Cultural Resources Impact	Pending - Cultural Resource Survey will need to be revisited	Architectural concurrence 3/20/2023
Public Land Impact (Section 4F/6F)	Not Applicable	Not Applicable
Other	Cleared	Not Applicable
PS&E Due Date	26-Sep	26-Sep
Letting Date	26-Oct	26-Oct
NEPA	CE2 Pending	CE2 Pending

The Project is Reasonably Expected to Begin Constructed not Later Than 18 Months after the Date of Obligation of Funds for the Project

The Project is reasonably expected to begin construction not later than 18 months after the date of obligation of funds for the project. Based on an estimated November 24 award announcement, preliminary engineering/ROW could begin March 2025, Pre-Construction September 2025, and Construction beginning February 2027. The project is expected to be completed by December 2028.

