NEPA Re-Evaluation

I-70 Section of Independent Utility 7

And

MoDOT State Job Number: SL0057
(I-70/I-64/US 61 Interchange)

July 29, 2024

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1.0 Introduction

The system interchange of I-70/I-64/US 61 at Wentzville is being studied for improvements to relieve congestion and enhance the safety of the traveling public. This project was originally included as Alternative #15 of SIU #7 of the 2006 Final Environmental Impact Statement (FEIS)/Record of Decision (ROD)[1]. Federal Highway Administration (FHWA) and Missouri Department of Transportation (MoDOT) policy requires re-evaluation of National Environmental Policy Act (NEPA) documentation if it has been more than three years since approval. Given the time that has passed since the FEIS/ROD was approved, a conceptual study was conducted to determine if the originally proposed alternative remained viable or if another was more appropriate. The study evaluated more than 20 interchange options and produced a refined preferred alternative. This refined preferred alternative was developed to be consistent with the Purpose and Need established in the 2006 FEIS/ROD and will be carried through this re-evaluation for comparison with the impacts as presented for Alternative 15 of SIU #7. The Purpose and Need was validated as part of this re-evaluation process.

2.0 Background

2.1. The I-70 Corridor

One of the most important limited-access highways across the United States is the I-70 corridor. Construction of I-70 in Missouri began in the 1950's and covers a distance of more than 250 miles across the state. MoDOT is in the process of studying, designing, and constructing major improvements to the corridor as part of the Improve I-70 program. The facility (I-70/I-64/US 61 system interchange) at Wentzville has outlasted its original design life of 20 years and has carried traffic volumes of both cars and heavy trucks that have far exceeded the expectations of the original designers.

2.2. First Tier EIS

MoDOT, in cooperation with the FHWA, began a process for improving I-70 in 1999 when MoDOT conducted a feasibility study to document the condition of the highway and to identify a number of alternatives in response. The feasibility study recommended that more detailed studies be conducted as part of a "tiered" process. The subsequent First Tier Environmental Impact Statement was designed to look at a broad range of conceptual corridors for the entire I-70 corridor, between the Kansas City and St. Louis metropolitan areas. To further study the environmental and engineering implications of the strategies identified in the I-70 Feasibility Study, and in compliance with the National Environmental Policy Act (NEPA), MoDOT initiated the I-70 Improvement Study. This study culminated in the preparation of the First Tier Environmental Impact Statement (EIS) for the I-70 corridor. The First Tier EIS, completed in the fall of 2001, considered several approaches to improving safety and travel efficiency within the corridor.

The goal of the Improve I-70 project was to provide a safe, efficient, environmentally sound and cost-effective transportation facility that responds to the needs of the study corridor and to the expectations

[1] A Supplemental EIS/ROD specific to truck-only lanes in the corridor was approved in August 2009 and amended in December 2023 to clarify roadway widening on I-70 should be inclusive of general-purpose lanes.

of drivers traveling on a nationally important interstate. The approved Purpose and Need was based on identified deficiencies within the corridor and summarized into the following categories:

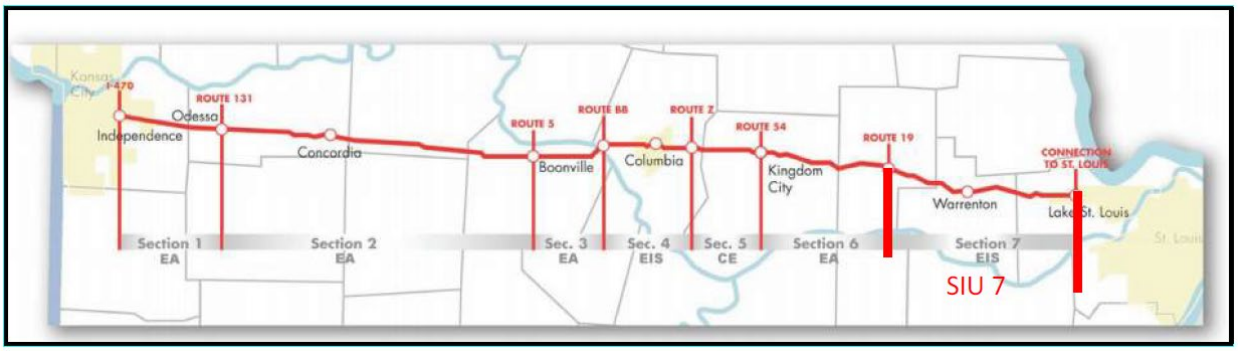
- Roadway Capacity – Increase roadway system capacity in accordance with projected travel demands to improve the general operating conditions on I-70.
- Traffic Safety – Reduce the number and severity of traffic-related crashes occurring along I-70 between Kansas City and St. Louis.
- Roadway Design Features – Upgrade current roadway design features along I-70, including interchanges, roadway alignment and roadway cross-sections.
- System Preservation – Preserve the existing I-70 facility through ongoing rehabilitation and maintenance activities.
- Goods Movement – Improve the efficiency of freight movement using I-70.
- National Defense/Homeland Security – Adding additional capacity along the I-70 corridor would increase the ability of the corridor to handle diversion from other highway links should a disaster occur.

During the First-Tier process, MoDOT developed numerous strategies in consultation with various resource agencies. In addition to agency input, the First Tier EIS incorporated public and community involvement developing consensus to arrive at a preferred strategy for improving the I-70 corridor.

2.3. Second Tier EIS

In 2002 a more detailed analysis of the selected strategy began, and Second Tier studies began for improving sections of the corridor. The intent of the Second-Tier EIS studies was to build on and extend the work of the First Tier EIS for improving I-70. This effort consisted of a group of seven independent but closely coordinated second tier studies that consider engineering, environmental and community issues as improvement decisions were made. Each of these seven studies focuses on a separate section of independent utility (SIU) to ensure that the preferred strategy was implemented in a way that was sensitive to the needs of local communities. Each SIU was an independent project, standing on its own merits within the framework of the Improve I-70 studies. **Figure 1** depicts the boundaries of the I-70 Second Tier EIS and the SIUs.

Figure 1: I-70 Second Tier SIU Areas



2.4. Section of Independent Utility 7

One of the sections evaluated in further detail was SIU #7, which is a 36-mile portion of the I-70 corridor between just west of Route 19 (milepost 174) and Lake St. Louis Boulevard (SIU #7 is highlighted in

Figure 1). MoDOT completed a Second Tier EIS of this segment, which was approved on October 24, 2005; a Record of Decision (ROD) was made on April 19, 2006. The Second Tier EIS/ROD identifies 17 sub-sections within SIU #7, the transportation problems within each of them, and how they should be addressed. Improvements proposed for the I-70/I-64/US 61 interchange are identified as Alternative 15 and located near the eastern terminus of SIU #7. A summary of the affected environment and environmental consequences in the Second Tier EIS/ROD is presented in **Section 6**. Per the Second Tier EIS completed for SIU #7, improvements within the SIU have been prioritized by MoDOT and have been packaged into smaller implementable sub-sections. Within SIU #7, MoDOT has several projects in the process of implementation and include:

ST0018	Kingdom City to Warrenton (includes parts of SIU #6 & #7)
ST0020	Warrenton to I-64/US 61
2I3274	Montgomery 19 to Wentzville
2P3090	Montgomery 19 Interchange
6I0624	Wentzville Curve
SL0057	I-70/I-64/US 61 Interchange
2S3438	Warren A/B
2S3439	Montgomery E
2S3440	Montgomery F

Of these smaller sections Project SL0057 (Alternative 15 from the original Second Tier EIS) is the subject of this re-evaluation document. With respect to the others, Warrenton to I-64 (ST0020) is currently determined to be the second project on the draft Improve I-70 schedule with an anticipated project award of Fall 2024 via Design-Build procurement method. The remainder of the SIU 7 corridor will be captured in the fourth Improve I-70 project, Kingdom City to Warrenton (ST0018), which is anticipated for project award in the Fall of 2026. Due to the bridge condition and prior STIP commitments, the bridge/interchange improvements at Warren Routes A and B, Exit 188, will be completed via design-bid-build with construction in 2025 or 2026 (2S3438). Two other bridges within the SIU 7, Montgomery Route E, Exit 183 at Jonesburg (2S3439), and Montgomery Route F, Exit 179 at High Hill (2S3440), are STIP commitments for bridge replacements; however, these bridges are being evaluated regarding timeline and delivery method.

2.5. Project SL0057

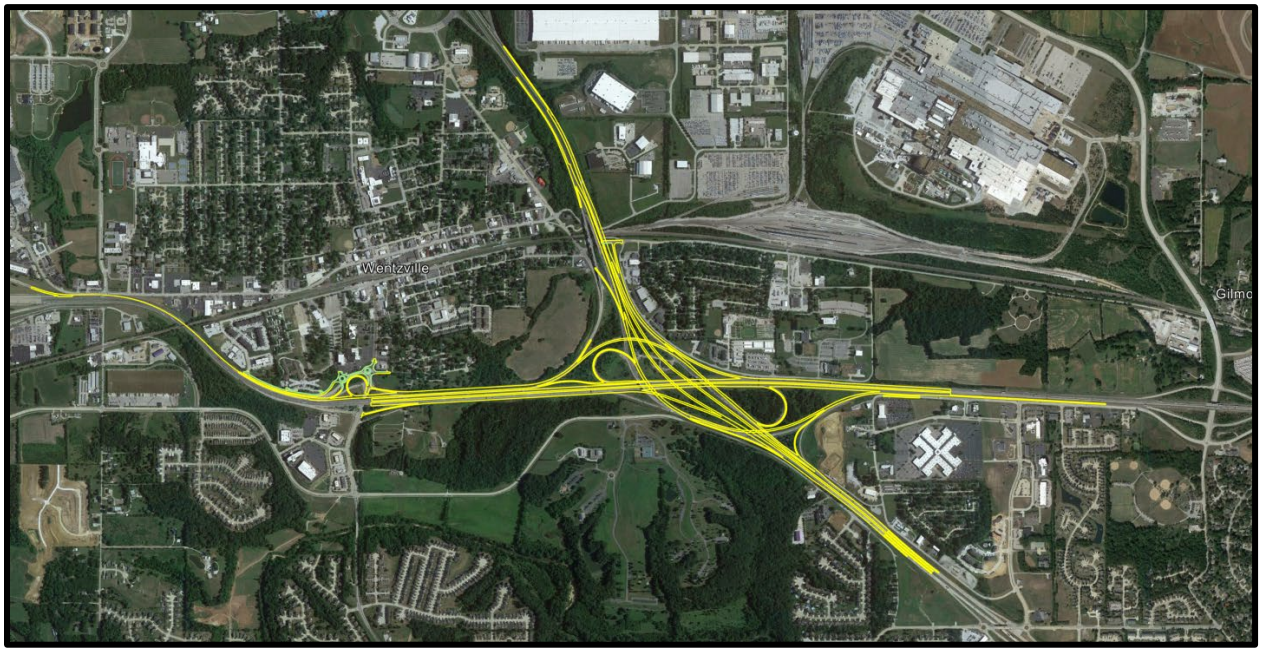
This improvement modifies access to the system interchange between I-70, I-64, and US 61 in Wentzville, Missouri (**Figure 2**). The primary results of the study included the following design access modifications:

- Widening/Lane expansion for all three routes (I-70/I-64/US 61)
- Incorporation of a collector-distributor (C-D) system for access to Route Z
- Continuous US 61 lanes constructed through the interchange
- Elimination of existing substandard design elements

Consistent with 23 CFR 771.129, a NEPA re-evaluation is being completed due to more than three years passing since FHWA's approval of the EIS. This document will provide a detailed environmental review of Project SL0057 and a desktop review of the entire SIU #7 corridor. Of note, Project SL0057 partially overlaps with Project J6I0624 – I-70 Wentzville Parkway to West of I-64/Route 61. The Re-evaluation of

this project was recently approved and focuses on widening the section of I-70 between the Wentzville Parkway and Route Z interchanges. The project schedule for J6I0624 was ahead of SL0057; however, coordination occurred throughout the design phases to accommodate the features of each.

Figure 2: Project SL0057



3.0 Purpose and Need Validation

As noted in the First Tier EIS, the goal of I-70 improvements along the entire Missouri corridor is to provide a safe, efficient, environmentally sound, and cost-effective transportation facility that responds to the needs of the study corridor and to the expectations of a nationally important interstate. Additionally, the Second Tier EIS documented the development of the purpose and need for the SIU #7 improvements. The specific Purpose and Need addressed by the proposed action in SIU #7 is summarized as follows.[2]

3.1. Route Importance and System Linkage:

I-70 is a vital part of the interstate system. Across the United States, I-70 is one of the nation's longest interstate routes, running east to west connecting 10 states from Utah to Maryland. Within Missouri, I-70 connects the metropolitan areas of St. Louis, Columbia, and Kansas City. Locally, I-70 connects many commercial, manufacturing, agricultural, and recreational areas via other significant routes. Ensuring the condition and capacity of the I-70/I-64/US 61 interchange is important for commuters to reach fast-growing areas in the region and for cross-state travel between St. Louis and parts of central (Columbia/Jefferson City), western (Kansas City) and northern (Hannibal) Missouri. Furthermore, since I-

[2] For additional information on how the Preferred Alternative meets the Purpose and Need, please refer to the Conceptual Report provided in Appendix A.

70 is a major long-haul freight route in the United States, it is vital that this interchange can handle the expected freight growth through the coming decades. Therefore, the route importance and system linkage element of the Purpose and Need remains valid for Project SL0057 and SIU #7.

3.2. Existing and Future Traffic Volumes

As noted in the second tier EIS, the actual traffic volume between Exit 209 and Exit 212, the section of SIU #7 encompassing the I-70/I-64/US 61 System Interchange, had an annual average daily traffic (AADT) of 64,000 vehicles in 2003. This was projected to increase between 92,700 to 97,800 by the year 2030, causing roadway level of service to dip below MoDOT standards. Currently, the average daily traffic estimate for 2022 in this area is approximately 80,153 vehicles, and recent projections estimate average daily traffic for 2050 at 102,000 vehicles. Data from a variety of sources was used to develop traffic growth rates for five primary locations within the study area. These locations were chosen based on the availability of historic count data and their positions on all sides of the interchange. For each location, trendlines were extrapolated forward from the historic traffic counts (2019 and prior), and trendlines were developed for the travel demand models by comparing future year with near-term model volume outputs. Future automobile traffic volumes were modeled to increase at approximately 1-2% based on the analysis.

Truck growth rates at the locations were assumed to be the same as overall growth rates, except for the interstates and expressways (I-70, I-64, US 61). For these interstate and regional corridors, future truck traffic growth is expected to outpace growth in automobile traffic, and the Spring 2021 FHWA Forecasts of Vehicle Miles Traveled were utilized to inform truck traffic growth.

Therefore, the existing and future traffic volumes element of the purpose and need remains valid for Project SL0057 and SIU #7.

3.3. Level of Service

The interchange is unable to accommodate traffic approaching on I-70 WB and I-64 WB in the PM peak period (4-5PM) and serves as a bottleneck that results in extended queues and rolling stopped traffic on both I-70 and I-64. The I-64 WB congestion can reach approximately nine miles east to Missouri 94. Similarly, rolling queues on I-70 WB extended between two and four miles east of the interchange.

In addition to the safety improvements that can be realized with a modified interchange, traffic delays would be substantially reduced, and average vehicle speed would increase. The improvement in travel times would be most pronounced during the Friday afternoon peak hours.

The traffic operational performance of the I-70/I-64/US 61 system interchange ramps would operate at a level of service (LOS) C or better during each of the peak hours in 2050 with the proposed improvements. Without improvements to the interchange, segments would continue to operate at a LOS F with additional segments degrading to LOS E and LOS F during the peak hours under the No Build.

Therefore, the level of service element of the purpose and need remains valid for Project SL0057 and SIU #7.

3.4. Existing Highway Characteristics

Functionally classified as "Interstate", I-70 is fully accessed controlled with 2022 AADT ranging from 30,500 to 48,900 in the project area. I-70 consists of two travel lanes with eight-foot shoulders between the Norfolk Southern Railroad (NSRR) and Route Z. West of Route Z, the alignment has an additional acceleration lane on the westbound side and a deceleration lane on the eastbound side. From Route Z to the I-64 interchange, I-70 WB consists of two travel lanes with an auxiliary lane east of Route Z to the I-64 EB to I-70 WB ramp and just east of the interchange. From the I-64 interchange to Route A, I-70 WB has three travel lanes with an acceleration lane just west of Route A. As it approaches the I-64/US 61 interchange, the third lane becomes a deceleration lane for the ramp to US 61 NB.

I-70 EB has three travel lanes from Route Z to Route A with an acceleration/deceleration lane just east of Route Z to the exit for I-64 EB, a deceleration lane just before the exit for US 61 NB, an acceleration lane at the US 61 SB entrance, and a deceleration lane at the Route A exit. Typically, the inside shoulders are eight-foot while the outside shoulders vary from eight-foot to 12-foot in both directions.
A concrete traffic barrier is located along the centerline of I-70. The posted speed limit along the corridor is 65 mph, with a minimum speed of 40 mph.

I-64 is functionally classified as "Interstate," and US 61 is functionally classified as "Freeway or Expressway." Both facilities are fully access controlled within the corridor. The 2022 AADT is approximately 37,000 on I-64 and ranges from 26,400 to 40,000 on US 61. Between the Wentzville Parkway/Route A interchange and the I-70/I-64 interchange, US 61 consists of two travel lanes in each direction.

US 61 SB has an acceleration lane at Wentzville Parkway and at the I-70 WB entrance loop ramp. An auxiliary lane is provided just before the I-70 WB exit. A lane is added where the I-70 EB ramp joins the I-64 EB Mainline. The lanes then split at the I-70 EB exit, reducing I-64 back to two lanes. It continues as two lanes through to Prospect Road, with a deceleration lane provided just before the exit at Prospect Road.

The I-64 WB has two travel lanes between Wentzville Parkway and Prospect Road. An auxiliary lane is added between the Pitman Avenue Exit and the I-70 WB entrance. An acceleration lane is also added at the I-70 EB entrance and the Prospect Road entrance.

The roadway has ten-foot outside shoulders and six-foot inside shoulders. A grass median of varying width is between the NB and SB lanes. The posted speed limit is 60 mph.

The I-70/I-64/US 61 Interchange is considered a directional, freeway-to-freeway system interchange. In the northwest quadrant, an exit ramp connects US 61 SB to I-70 WB, signed as 40 mph. It exits US 61 SB as a single lane, traveling over Pearce Boulevard, the Norfolk Southern (NS) Railroad, and Pitman Avenue. Access from Pitman Avenue ties in and merges midway through this ramp. The exit ramp from I-64 WB exits left, passes beneath I-64 EB, and ties into this ramp as well, creating two lanes. They merge into one just before they tie into I-70 WB. A single lane loop ramp connects I-70 WB to I-64 EB in this quadrant as well.

The southwest quadrant has a 40 mph exit ramp connecting I-70 EB to I-64 EB, which increases I-64 EB to three lanes. I-64 EB retains three lanes for roughly 800 feet then splits at the I-70 EB exit. I-64 EB continues with two lanes. The I-70 EB exit, signed as 45 mph, carries two lanes over I-64 WB into the

southeast quadrant before merging into one lane. A single-lane exit from I-64 WB yields and merges into this I-70 EB exit before ultimately merging with I-70 EB. A 30-mph single lane loop ramp connects I-70 EB to I-64 WB in the southeast quadrant.

The northeast quadrant has a single lane exit ramp connecting I-70 WB to US 61 NB. It is signed at 40 mph.

The project maintains access while improving operations, capacity, and safety. Therefore, the existing highway characteristics element of the Purpose and Need remains valid for Project SL0057 and SIU #7.

3.5. Crashes and Safety

A total of 2,449 crashes occurred between 2017 and 2021 within the study area, averaging 489.8 crashes per year over the five-year period. The most common crash type was rear-end, which is expected given the congested conditions in the study area. The impact of congestion on safety is reinforced by the fact that 451 crashes occurred on Fridays, the busiest time period in the study area, which is 86 more than any other day of the week. Passing and out-of-control crashes were the second and third most common types. There were nine fatal crashes in the study area over the five-year analysis period. Of the nine fatal crashes, six were listed as out-of-control, two as rear-end, and one as pedestrian-related. Four of the fatal crashes occurred on I-70, one on I-64, one on Luetkenhaus Boulevard, and two at the interchange of US 61 and Route A. The severity by year of observed crashes in the study area are shown in **Table 1**.

Table 1: Crash Severity by Year

Crash type	2017	2018	2019	2020	2021	Total (all years)
Fatal	2	1	2	1	3	*9*
Suspected Serious Injury	3	9	7	5	7	*31*
Minor Injury	72	77	74	41	69	*333*
Property Damage Only	432	365	446	392	441	*2,076*
TOTAL	***509***	***452***	***529***	***439***	***520***	***2,449***

Therefore, the crashes and safety characteristics element of the Purpose and Need remains valid for Project SL0057 and SIU #7.

3.6. Modal Relationships

Project SL0057 further expands the modal relationships between roadways, airports, navigable waterways, and mass transit services. Furthermore, improvements made to the I-70/I-64/US 61 system interchange provide vital congestion relief to allow for access to other modes of transportation. A variety of roadways and freight railroad system exist to the south of I-70. I-64/US 40 to the south of I-70 offers access to the Missouri River, Katy Trail, and Amtrak passenger rail service. The City of Wentzville's Comprehensive Plan Update includes planned trails or accommodations along the frontage roads of the I-70 corridor, including within the project limits.

Therefore, the modal relationships characteristics element of the Purpose and Need remains valid for Project SL0057 and SIU #7.

3.7. Access Management

Numerous movements within the interchange are considered substandard design elements. The existing configuration includes three problematic weaving locations that contribute to the interchange's traffic flow breakdowns. Highlighting a few of these issues are as follows:

- The two US 61 SB lanes do not continue to I-64 EB. Instead, the left lane of US 61 SB departs as an exit-only lane for the I-70 EB ramp, and lefthand exits no longer satisfy current design standards for system interchanges.

- The I-64 WB to I-70 EB ramp has a tight horizontal alignment that dictates a low speed (posted advisory speed of 30 mph) while lacking a deceleration lane to facilitate the transition movement from the mainline.

- The US 61 SB to I-70 EB ramp requires vehicles to merge into the SB-to-EB traffic stream, which is moving at a much higher speed and has limited merging distance.

- The I-64 WB to I-70 WB ramp is a left side exit ramp, which no longer satisfies modern standards for system interchanges.

The proposed design for this project will address the current substandard access management concerns at the interchange; therefore, the access management element of the Purpose and Need remains valid for Project SL0057 and SIU #7.

3.8. National Defense/Homeland Security

I-70 is a key corridor in the Strategic Highway Network and a primary facility for moving personnel and equipment for deployment and emergency response. Improvements to the I-70/I-64/US 61 system interchange ensure expanded connectivity of the highway network to areas north and south of I-70 which support the system needs for disaster response or national security; therefore, the national security element of the Purpose and Need remains valid for Project SL0057 and SIU #7.

In summary, the Purpose and Need identified in the Second Tier EIS remains valid for the current re-evaluation for the proposed improvements to the I-70/I-64/US 61 system interchange (Project SL0057 and SIU #7).

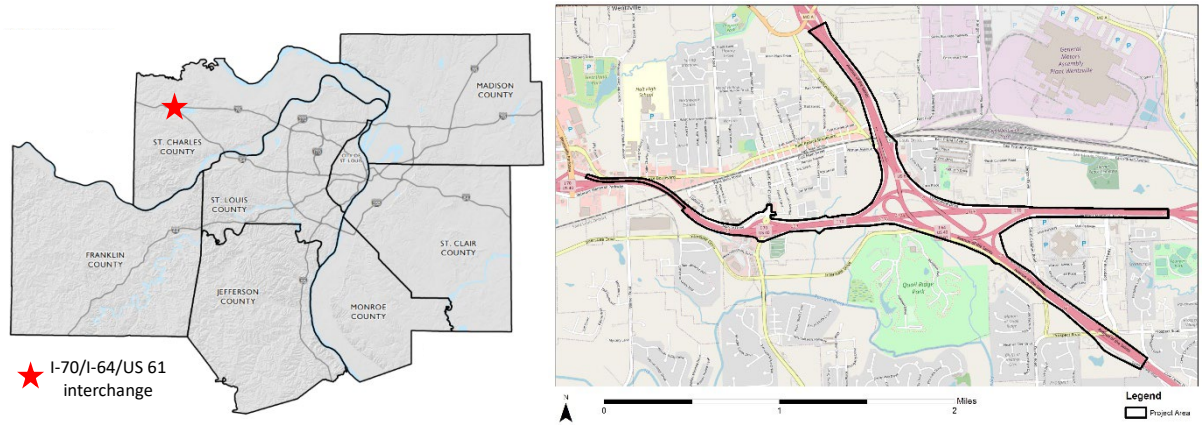
4.0 Refined Preferred Alternative

Per the Second Tier EIS completed for SIU #7, improvements within the SIU have been prioritized by MoDOT and SIU #7 have been packaged into smaller implementable sections. The I-70/I-64/US 61 system interchange improvements represent Alternative 15 from SIU #7. Project SL0057 is further described as follows.

4.1. Project Location

The I-70/I-64/US 61 system interchange project is located in south-central St. Charles County, Wentzville, Missouri and extends west-to-east along I-70 from the Wentzville Parkway interchange to the Route A/Freymuth Road interchange and north-to-south along US 61/I-64 from the Wentzville Parkway/Route A interchange to the Prospect Road interchange (**Figure 3**).

Figure 3: Project Location



4.2. Development of the Tentative Refined Preferred Alternative

Development of a recommendation for improvements included collaboration between the 'Core' team, a technical advisory group (TAG), and the public identifying problems and potential solutions. The Core team was composed of MoDOT, FHWA, and the design consultant team; the TAG was composed of members of the Core team plus key representatives from the study area (e.g., St. Charles County, Wentzville, and Lake St. Louis). To receive public input, a survey was distributed, and a public meeting held.

A brainstorming session was held with the TAG early in the conceptual report development phase where members were asked to provide their perceived transportation issues, and the Core team presented a summation of the initial traffic data. A selection of key problems identified included:

- Weaving between Route Z and the interchange (both EB and WB movements)
- Congestion between Route Z and the interchange
- Overall congestion resulting in regional delays
- Presence of single left-hand exit which produced a fast decision point
- Confusion on turning movements impacting decision points throughout
- Aging infrastructure and deficient geometrics
- Existing capacity constraints with continued growth
- Capacity constraints impacts both local and regional traffic

The public survey produced findings supportive of the TAG brainstorming session. The detailed traffic studies confirmed the perceived transportation issues provided by the TAG members and public. The identified problems were evaluated against the purpose and need of the 2006 FEIS/ROD:

- *[Increase*] Roadway Capacity – The study identified the need for increased capacity on both the mainline and several of the turning movements.

- [*Enhance*] Traffic Safety – The study identified the need to improve geometrics, weaving areas, and decision points throughout the interchange to reduce crashes.

- [*Improve*] Roadway Design Features – The study identified the need to improve geometrics and signage, add capacity, and replace certain aging infrastructure.

- System Preservation – The study identified the existing interchange was not efficiently moving traffic through the study area, the continued growth of the regional and local traffic has strained the existing I-70 facility.

- Goods Movement – The study identified the existing capacity constraints result in delays during peak travel times which impact regional freight movement.

- National Defense/Homeland Security – The study identified existing capacity constraints under normal peak hours and worsening conditions under design year projections.

A conceptual analysis included more than 20 distinct interchange options as part of the preliminary alternatives screening process. A screening matrix was created to compare the performance of the alternatives. Three alternatives received the highest scoring from the screening analysis and were selected. These alternatives were then revised as Alternative A, Alternative B, and Alternative C, and subject of more detailed evaluations, including simulation modeling using VISSIM, Highway Safety Manual analyses, full conceptual design, and detailed cost estimation. The performance was compared using operational effectiveness and safety to quantitatively identify a preferred alternative, for this LOS and density were the operational/mobility targets, while crash reductions were the safety target. Qualitative evaluation was included with respect to design standards, NEPA issues, and planning.

4.3. Refined Preferred Alternative

Based on the findings of the Conceptual Study Report (**Appendix A**), Alternative A was determined to be the recommended approach. Alternative A was the only alternative that fully preserves access to Pitman Avenue without substantial disruption to the adjacent properties.

Alternative A maintains the existing US 61 carriageways through the interchange as collector-distributor (C-D) roads while building new US 61 through lanes in the space between the existing northbound and southbound lanes. Meanwhile, new C-D roads would be developed along both the eastbound and westbound sides of I-70 between Route Z and the I-64/US 61 interchange. Access from I-70 WB to Route Z would be provided with a braided ramp that would depart I-70 near the existing loop ramp to I-64 EB and cross over the proposed westbound C-D road. The ramp locations within the I-70/I-64/US 61 interchange would generally be left in the same locations as they are today (refer back to **Figure 2**). An estimated construction cost of approximately $172 million dollars was identified for the refined preferred alternative.

In addition to vehicular traffic, the alternative provides opportunities for vulnerable road users. Pedestrian accommodation / improvements are proposed along both sides of Church Street, north of

Mar-Le Drive, and the inclusion of a new shared use path along the Church Street/Route Z corridor to provide for pedestrian movement across the I-70 corridor.

5.0 Public and Agency Coordination

NEPA requires that agencies "make diligent efforts to involve the public and resource and regulatory agencies in preparing and implementing their NEPA procedures" (40 CFR 1506.6). Public and agency participation has been an important part of the Improve I-70 project since its inception. MoDOT made a commitment at the beginning of the project to encourage and solicit public and agency participation and feedback. Various forms of public involvement and outreach were coordinated for both the First and Second Tier EIS since the project conception:

- During the I-70 First Tier EIS, there were more than 22,000 direct contacts between the public and the I-70 project team.
- During the I-70 Second Tier EIS, the public involvement planning efforts associated with SIU #7 used techniques such as survey research, toll-free hotline, newsletters, fact sheets, brochures, media kits, media releases and advisories, videos, general mailing lists, databases, and websites.

Below is a summary of the outreach coordination that has occurred specific to Project SL0057.

For the project a public survey was designed to solicit feedback from the public on their experiences and areas of concern when traveling through the interchange and their views on the objectives associated with some of the potential improvements for the interchange. The survey was hosted online and was prominently displayed on the project website for the I-70/I-64/US 61 interchange (Project website: https://www.modot.org/i-64i-70route-4061-interchange).

The survey was promoted by email to a list of stakeholders as well as through social media via the Facebook feeds from MoDOT, St. Charles County and the City of Wentzville. It launched on January 21, 2022 and was closed on February 16, 2022. It consisted of ten quantitative questions with a predefined list of answers and one qualitative open-ended question. The survey solicited over four thousand responses (**Appendix B**). Response to the survey helped provide valuable insight into commuter's perception of problems and potential solutions. The public was also engaged on the project during an open house public meeting held on 8/22/22. The open house public meeting had 60 attendees, six media outlets and 15 comment forms submitted.

The TAG was collaboratively engaged throughout the development of the preferred alternative. This group held virtual meetings that further engaged the communities and yielded quality information on potential developments in the area and possible concerns. Four TAG meetings were held: 7/13/21, 11/30/21, 11/14/22, and 6/6/23.

5.1. Tribal Consultation

FHWA must consult with any Native American Indian tribe that may attach religious and cultural significance to historic properties that could be affected by project undertakings. FHWA initiated consultation with the following Tribes: Absentee Shawnee Tribe of Indians of Oklahoma, Eastern

Shawnee Tribe of Oklahoma, Iowa Tribe of Kansas and Nebraska, Iowa Tribe of Oklahoma, Kaw Indian Nation of Oklahoma, Kickapoo Tribe of Indians of the Kickapoo Reservation in Kansas, Kickapoo Tribe of Oklahoma, Miami Tribe of Oklahoma, The Osage Nation, Ponca Tribe of Nebraska, Ponca Tribe of Indians of Oklahoma, Quapaw Nation, Sac and Fox Nation of Missouri in Kansas and Nebraska, Sac and Fox Tribe of the Mississippi in Iowa, Sac and Fox Nation of Oklahoma, and the Shawnee Tribe.

FHWA and MoDOT received responses from the Tribal Historic Preservation Officers (THPO) of the Eastern Shawnee Tribe of Oklahoma, the Iowa Tribe of Kansas and Nebraska, the Miami Tribe of Oklahoma, and the Quapaw Nation. The following comments include:

a. The Eastern Shawnee Tribe of Oklahoma, the Iowa Tribe of Kansas and Nebraska, and the Miami Tribe of Oklahoma have no objections with the project as currently planned but request immediate consultation in the event human remains or archaeological sites are identified.

b. In addition, the Iowa Tribe of Kansas and Nebraska requests copies of all cultural resources survey reports.

c. The Quapaw Nation requests copies of all SHPO correspondence.

6.0 Resource Impact Evaluation

The SIU #7 Tier Two EIS evaluated impacts associated with a 40-mile portion of the I-70 corridor between just west of Route 19 (milepost 174) and Lake St. Louis Boulevard. MoDOT completed a Second Tier EIS of this segment, which was approved on October 24, 2005; and a Record of Decision (ROD) was made on April 19, 2006. This re-evaluation includes a high-level review and screening of environmental resources along the entire SIU #7 corridor. It also includes a detailed re-evaluation of the resources and impacts associated specifically with Project SL0057.

A key component of this re-evaluation is to confirm previous findings and to update any areas of change. This re-evaluation serves to evaluate the types of impacts of the proposed refined preferred alternative, with the focus being on the context and intensity of effects that may result in significant affect to the quality of the human and natural environments. The Environmental Re-Evaluation/Consultation Form presents impact analysis findings for each resource evaluated. The matrix identifies if there is an impact to the resource with a yes/no check box and whether the impact has changed or remained the same from the Second Tier EIS.

Environmental Re-Evaluation/Consultation Form

For

I-70 Second Tier EIS Re-Evaluation

Section of Independent Utility 7 and

Project SL0057: I-70/I-64/US 61 System Interchange

23 CFR 771.129

Missouri Department of Transportation/Federal Highway Administration

FHWA REGION Missouri Division	**STATE PROJECT NO.** SL0057	**PROJECT TITLE, DOCUMENT TYPE** Second Tier Final Environmental Assessment and Final Section 4(f) Evaluation Section of Independent Utility 7 I-70/I-64/US 61 System Interchange Improvements
DATE APPROVED	**FEDERAL AID NO.** 0641(109)	

REASON FOR CONSULTATION:
The I-70/I-64/US 61 system interchange in St. Charles County, Wentzville, Missouri is unable to accommodate traffic approaching on westbound I-70 and westbound I-64 in the afternoon. It serves as a bottleneck that results in substantial queues and rolling stopped traffic on both I-70 and I-64. Additionally, the interchange experiences weaving, and substandard ramp design creating a significant need for improvements. The FHWA and MoDOT's EPG requires a NEPA re-evaluation when there has been greater than three years since the original NEPA approval, or when changes related to the original study have occurred. The original NEPA approval – a ROD – was made on April 19, 2006. Due to the amount of time that has passed since the initial evaluation and the difference in recommended design, a NEPA re-evaluation of SIU #7 will occur with a focus on the I-70/I-64/US 61 system interchange (Project SL0057). This project coincides with Alternative 15 of SIU #7.

IS THERE AN IMPACT AND WILL THE TIME LAPSE CHANGE THE IMPACTS TO THE FOLLOWING:

6.1. Land Use

Is there an impact to this resource?	Yes ☐ No ☒
Change since 2nd Tier EIS	More Impacts ☐ No Change ☒ Fewer Impacts ☐

SIU #7: Within SIU #7, land use is comprised of residential areas dispersed throughout the study corridor, with concentrations centered at or near the communities of High Hill, Jonesburg, Warrenton, Wright City, Foristell, and Wentzville. The western portion of SIU #7 is primarily agricultural uses (i.e., row-crop and pasture) with a transition to urban land uses in the eastern portion of the corridor. The SIU #7 corridor also contains many commercial business and industrial land uses, mainly located in the towns along major roadways. The land uses

within SIU #7 have largely remained the same since completion of the Second Tier EIS; however, urbanization has continued.

There are several parks located within the SIU #7 corridor. Those identified in the Second Tier EIS are valid and no new additional parks have been added within a half-mile of the SIU #7 corridor since the completion of the Second Tier EIS. Additionally, no new conservation areas have been added.

The First Tier EIS identified bicycle and pedestrian facilities, including recreational trail improvements or linear parks, as joint development opportunities. Subsequently, Second Tier EIS efforts included addressing cross-corridor needs of pedestrians and bicycles. Many of the municipality bicycle/pedestrian plans noted in the Second Tier EIS have been completed and or updated. For example, Warrenton's Comprehensive Plan, developed since completion of the Second Tier EIS, includes accommodations for bicycles and pedestrians over I-70 at the Highway 47 interchange. Likewise, the City of Wentzville's Comprehensive Plan Update includes planned trails or accommodations along the frontage roads of the I-70 corridor. Ongoing coordination efforts should be carried out as individual projects within SIU #7 are carried forward.

Project SL0057: Local jurisdictions are responsible for land use planning along the I-70 corridor, including within SIU #7. These entities address existing and future land use in comprehensive plans and other planning documents. Since 2005, land use largely remains the same within the limits of Project SL0057 (**Figure 5**). The proposed project is located within a developed urban area with a mix of roadside service uses along an interstate roadway. The project limit's land cover is mostly developed with urban impervious areas (40%), grassland (47%) associated with mowed right-of-way, and woody vegetation (9.5%) as defined by the 2017 urban landcover mapping done by the East-West Gateway. Land use adjacent to the project limits are a mix of retail/commercial business, single family residential and open space (Linn Cemetery and Quail Ridge Park) adjacent to the project area. There would be no significant direct land use changes because of the proposed project because the proposed improvements are to be constructed predominantly within the existing right-of-way. Future land use is expected to be consistent with what currently exists. The proposed project would be consistent with, and supportive of, The St. Charles County Master Plan Envision 2030 (**Figure 4**) (https://www.sccmo.org/2009/Master-Plan-Envision-2030). No impact on parks or open spaces would occur because of the proposed project. Additionally, a pedestrian facility has been included in the refined preferred alternative along Route Z creating improved connectivity north and south of I-70.

Figure 4: St. Charles County Master Plan 2030 Land Use

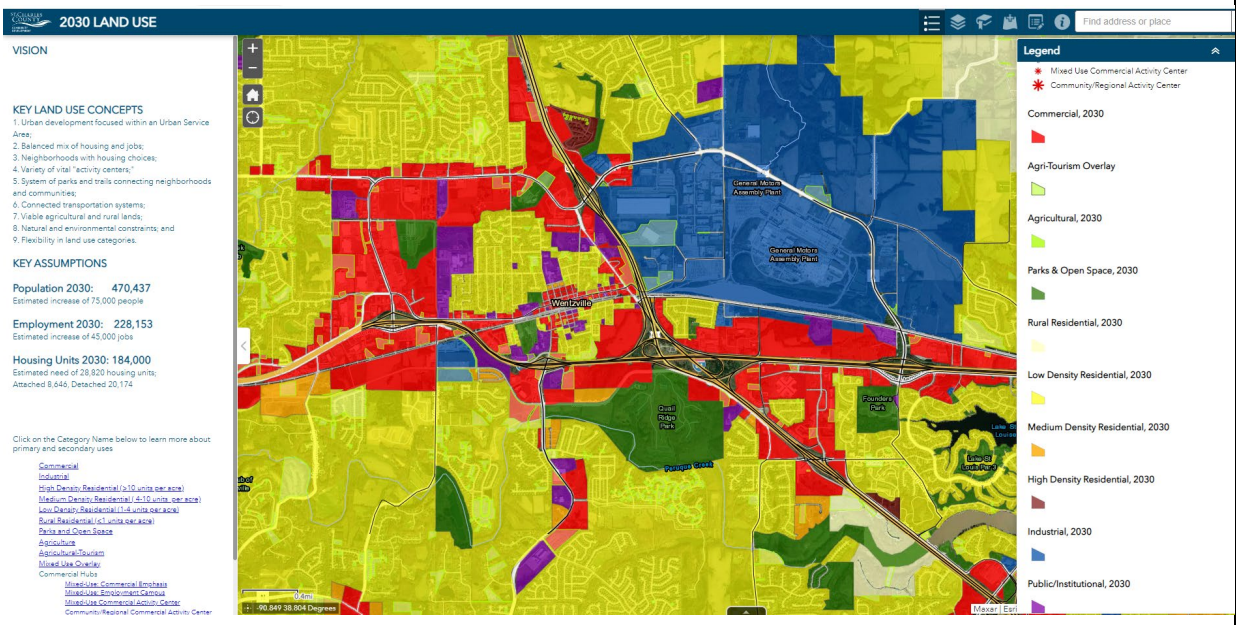


Figure 5: Land Use 2005 versus 2022

6.2. Prime Farmland

Is there an impact to this resource?	Yes ☐	No ☒
Change since 2nd Tier EIS	More Impacts ☐ No Change ☐	Fewer Impacts ☒

SIU #7: Land use within SIU #7 is comprised of residential areas dispersed throughout the study corridor, with concentrations centered in the communities of High Hill, Jonesburg, Warrenton, Wright City, Foristell, and Wentzville. The western portion of SIU #7 is heavily agricultural in nature and transitions to an urban land use in the eastern portion of the corridor. The SIU #7 corridor also contains commercial and industrial land uses, mainly located in the towns along major roadways (such as exists within the proposed SL0057 project). The land uses within SIU #7 have largely remained the same since completion of the Second Tier EIS. The Farmland Protection Policy Act (FPPA) mandates agencies identify and consider adverse effects of federal projects on farmland. In cooperation with the local Natural Resources Conservation Service (NRCS) office, the act requires assessment for potential conversion of farmland to non-farming purposes for all federally funded projects.

Project SL0057: The project area resides primarily in an urban/built environment near the City of Wentzville. A Farmland Conversion Impact Rating Form AD1006 was completed for the preferred alternative covering the Project SL0057 limits (Alternative 15) within the 2006 FEIS. The total conversion impact rating for the original preferred alternative (Alt 15) was 118.6, well below the 160-point threshold established for consideration of farmland protection. Continued development and growth in the area since 2006 has further decreased the amount of farmland in the vicinity of the project limits. Furthermore, according to the U.S. Census Bureau Urban Area Reference Map, the project corridor is entirely within the designated-urbanized area of St. Charles County. There is no potential for conversion of farmland. Therefore, the project is not subject to the FPPA.

6.3. Right-of-Way Acquisition and Displacements

Is there an impact to this resource?	Yes ☒	No ☐
Change since 2nd Tier EIS	More Impacts ☐ No Change ☐	Fewer Impacts ☒

SIU #7: As discussed in the Tier 2 EIS, land use within SIU #7 is comprised of residential areas dispersed throughout the study corridor, with concentrations centered in the SIU's communities. The western portion of SIU #7 is heavily agricultural in nature and transitions to an urban land use in the eastern portion of the corridor. The SIU #7 corridor also contains commercial and industrial land uses, mainly located in the towns along major roadways. The land uses within SIU #7 have largely remained the same since completion of the Second Tier EIS.

Relative to displacements and property acquisition, the most salient factor is the configuration of the project's footprint. The Tier 2 EIS assumes a total of 194 structure impacts within the entire SIU #7.

Within the Alternative 15 section of SIU #7 covering the I-70/I-64/US 61 system interchange, it was estimated a total of seven structures would be impacted, three displacements would occur, and 37 parcels would require some form of acquisition.

Project SL0057: The footprint for the project has been refined and reduced from the original Tier 2 EIS. This eliminates the need for structure displacements and greatly reduces the extent of property acquisition.

No homes or structures are present in the construction footprint of the refined preferred alternative; thus, no displacement will result from the project. The refined footprint will still require both permanent and temporary

acquisitions; it is estimated 2.68-acres of new right-of-way will need to be acquired and 0.46-acres of temporary easements to maintain access for property owners in the vicinity of the project.

6.4. Socioeconomics

Is there an impact to this resource?	Yes ☐	No ☒
Change since 2nd Tier EIS	More Impacts ☐	No Change ☒	Fewer Impacts ☐

SIU #7: To assess potential changes in population since completion of the Second Tier EIS, demographic data was obtained from the 2000, 2010, and 2020 U.S. Census for comparison purposes. Population data are provided for the counties within the study corridor and for the State of Missouri to better understand the social trends in the corridor.

Relative to total population, between 2000 and 2020, the combined population of Montgomery, Warren, and St. Charles counties grew from 320,544 to 452,126, an increase of 29.1 percent, slightly less than the 31.5 percent increase reported in the Second Tier EIS for 2020.

Between 2000 and 2020, the population in the State of Missouri increased by 9.1 percent to 6,154,913. The three counties accounted for 5.7 percent of the state's total population in 2000, 6.8 percent in 2010, and 7.4 percent in 2020 (**Table 2**). The highest rate of growth between 2000 and 2020 among the three counties was recorded in Warren County with 31.0 percent. St. Charles County had a growth rate of 30.0 percent while Montgomery County experienced a negative growth rate of -7.1 percent.

Table 2: Population Change per County

Area	2000 Population	2010 Population	2020 Population	% Change 2000-2010	% Change 2010-2020	% Change 2000-2020
Montgomery Co	12,136	12,236	11,332	0.8%	-8.0%	-7.1%
Warren Co	24,525	32,513	35,532	24.6%	8.5%	31.0%
St Charles Co	283,883	360,485	405,262	21.2%	11.0%	30.0%
Totals	320,544	405,234	452,126	20.9%	10.4%	29.1%
State of Missouri	5,595,211	5,988,927	6,154,913	6.6%	2.7%	9.1%

Table 3 shows the 2000 populations, the 2010 populations and the 2020 populations for the communities within the SIU #7 corridor. Warrenton, Wentzville, and Lake St. Louis accounted for nearly 84 percent of the population of the communities in the SIU #7 corridor in 2000 and 89 percent in 2010 and 2020. Lake St. Louis was the most populated community in the SIU #7 corridor in 2000. However, population in Wentzville experienced an increase of 486 percent by 2020 and was the most populated community that year (40,407), nearly 3.5 times the population of Lake St. Louis. All the communities within the three counties experienced population increases, except High Hill which experienced a negative growth rate (-2.21 percent). Most of the population growth took place in the eastern portion of the SIU #7 corridor. New Florence population has changed very little between 2000 and 2020.

Table 3: Population Change per Community

Area	Community	2000 Population	2010 Population	2020 Population	% Change 2000-2010	% Change 2010-2020	% Change 2000-2020
Montgomery Co	New Florence	764	769	794	0.7%	3.1%	3.8%
	High Hill	231	195	226	-18.5%	13.7%	-2.2%
	Jonesburg	695	768	812	9.5%	5.4%	14.4%
Warren Co	Warrenton	5,281	7,880	8,388	33.0%	6.1%	37.0%
	Truesdale	397	732	799	45.8%	8.4%	50.3%
	Wright City	1,532	3,119	4,012	50.9%	22.3%	61.8%
St Charles Co	Foristell	331	505	881	34.5%	42.7%	62.4%
	Wentzville	6,896	29,070	40,407	76.3%	28.1%	82.9%
	Flint Hill	379	525	935	27.8%	43.9%	59.5%
	Lake St. Louis	10,169	14,545	16,357	30.1%	11.1%	37.8%
Total		26,675	58,108	73,611	54.1%	21.1%	63.8%

Minority and low-income populations are discussed in 6.5 (Environmental Justice).

Project SL0057: Changes to the I-70/I-64/US 61 system interchange area will not have a notable impact on the demographic and social settings; however, the improved interchange intersections and traffic flow will have a positive influence on future economic development opportunities.

6.5. Environmental Justice

Is there an impact to this resource?		Yes ☒	No ☐
Change since 2nd Tier EIS	More Impacts ☐	No Change ☒	Fewer Impacts ☐

On April 21, 2023, the President signed Executive Order (EO) 14096, Revitalizing Our Nation's Commitment to Environmental Justice (EJ) to pursue a whole-of-government approach to EJ. This order also supplements the foundational efforts of Executive Order 12898 of February 11, 1994 (Federal Actions to address Environmental Justice in Minority Populations and Low-Income Populations).

EO 14096 revises the long-standing definition of "Environmental Justice" as:

> The just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment so that people:
>
> (i) are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and
>
> (ii) have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.

EO 14096 leaves the foundation of EO 12898 intact, while building on, modernizing, and complementing it with new action and new charges for agencies to meet today's moment, based on lessons learned under implementation of EO 12898.

Under EO 14096 Federal agencies are directed to take the appropriate and necessary steps to identify and address disproportionate and adverse effects of Federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. The new EO 14096 on EJ does not rescind EO 12898, which FHWA is implementing through the current DOT and FHWA EJ Orders. The order requires federal actions to:

- Avoid, minimize, or mitigate disproportionate and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- Ensure the full and fair participation by all potentially affected communities in the transportation decision making process.
- Prevent the denial of, reduction in, or substantial delay of, the receipt of benefits by minority and low-income populations.

The new EO includes a broader definition of "communities with environmental justice concerns", expanding beyond low-income and minority communities to include:

- Geographic locations that have a significant proportion of people who have low incomes or are otherwise adversely affected by persistent poverty or inequality.
- Places with a significant proportion of people of color
- Geographically dispersed and mobile populations, such as migrant farmworkers
- Places with racial discrimination and segregation, redlining, exclusionary zoning, and other discriminatory land use decisions or patterns

Project SL0057: The project was reviewed using the USEPA's EJSCREEN mapping tool and the U.S. Census Bureau American Community Survey (ACS). The EJSCREEN study area was defined as a 0.50-mile radius around I-70/I-64/US 61 system interchange. Based on this, the population of the project study area is estimated to be approximately 8,296. EJSCREEN estimates 3,488 households, 89 percent of the population is assumed to be white, 93 percent speak English only, 93 percent have at least a High School diploma and the per capita income is $39,181. The predominant non-English language spoken is Spanish. Vietnamese accounts for one percent of the population within the 0.5-mile radius of the corridor; however, Spanish is the only language noted as associated with a population with limited English proficiency in the EJSCREEN report.

Demographic data for the project was derived from the 2020 United States Census and the American Community Survey 5-Year Estimates. This data is provided at the county and census tract areas to provide a summary of social and economic trends within the study corridor. Data from the project area was compared to the respective countywide data to analyze for sensitive populations including minority, low-income, Limited English Proficiency (LEP), and Linguistically isolated household (LIHH).

The project crosses 11 distinct population areas within St. Charles County (**Table 4**). The overall percentage of minorities within the County is 13.4 while the percent low-income is 4.6. The overall percentage of LEP and LIHH in the County are 2.7 and 1.2, respectively. In comparison to the State of Missouri, St. Charles County has fewer populations of minority and low-income. In comparison to the City of Wentzville, the County has higher minority populations but fewer low-income. Although Wentzville has a smaller percentage of minorities, it does have a higher percentage associated with households having LEP.

The analysis identified EJ populations as present in the project area. Temporary impacts may occur during construction, including noise from construction equipment and vehicles, travel disruptions, and fugitive dust and emission during project construction. Permanent impacts may result from increased noise levels over time; however, based on the above discussion and analysis, the refined preferred alternative will not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of E.O. 12898 and FHWA Order 6640.23A. No further EJ analysis is required. Analysis did indicate the

project area included LEP populations exceeding five percent. As such, all public materials generated were offered with translation services; however, none were requested.

Table 4. Analysis for Potential EJ Populations

	Reference		
	Missouri	*Wentzville*	*St. Charles Co*
Total population	*6,137,428*	*41,784*	*402,022*
% Minority[1]	17.1%	10.2%	13.4%
% Low- income[2]	12.9%	5.6%	4.6%
% Age 5+ LEP[3]	6.3%	4.1%	2.7%
% LIHH[4]	6.2%	2.0%	1.2%

	BG 20952	BG 20941	BG 20961	BG 29151	BG 21952	BG 21921	BG 21931	BG 19081	BG 19031	BG 19034	BG 20951
Total population	*950*	*4,898*	*6,982*	*1,876*	*1,258*	*5,181*	*8,000*	*3,519*	*1,897*	*2,108*	*4,501*
Minority	38.7%	12.5%	10.8%	11.2%	6.7%	8.6%	7.3%	7.8%	5.7%	5.8%	9.3%
Low-Income	21.2%	8.7%	6.3%	7.8%	14.7%	2.6%	2.5%	1.6%	14.6%	10.6%	2.3%
LEP	0.0%	4.2%	4.1%	5.9%	1.4%	7.3%	5.9%	2.5%	6.5%	6.1%	3.0%
LIHH	0.0%	0.0%	0.9%	4.3%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%

[1] Non-white and/or Hispanic
[2] Income below the current poverty rate
[3] LIHH means no member 14 years of age or older speaks only English or speaks English "very well."
[4] LEP refers to any person age 5 and older who reported speaking English less than "very well" as classified by the U.S. Census Bureau

6.6. Soils and Geology

Is there an impact to this resource?	Yes ☐	No ☒
Change since 2nd Tier EIS	More Impacts ☐ No Change ☒	Fewer Impacts ☐

SIU #7: The geotechnical results of the SIU #7 Second Tier EIS are summarized below:

Relative to Bedrock and Structural Geology, there are no records of any coal or other surface mining in the area of study. Therefore, the possibility of surface subsidence from mine collapse is non-existent. Modifications to the bedrock as a result of the proposed project are not anticipated. Consequently, there would not be impacts to bedrock dependent factors such as groundwater quantity and quality.

Relative to Topography, Surficial Geology & Soils, the proposed improvements are along the alignment of existing I-70 and will require significant cut and fill operations especially for the peripheral roads, ramps and filling of existing drainage ways. Construction will result in disturbance of surface and near-surface material. The top five to 10 feet (1.5 to 3 meters) of the surficial material may have engineering limitations. The high to moderate shrink-swell potential could cause damage to the foundations of light structures and roadway pavement. Foundations and footings should be adequately reinforced to prevent structural damage. Drainage system should be installed around footings and along the roadway to prevent damage from excessive wetness. This soil does not have sufficient strength to support vehicular traffic, but this can be overcome by strengthening the base material with crushed rock or other suitable material. Side ditches and culverts can provide proper drainage to help prevent damage from frost action and shrinking and swelling.

Relative to Mineral Resources, the existing mineral resources within the immediate study corridor will not be excluded from future development by the proposed project.

Relative to Seismic Risk, seismic activity has a low potential to damage the proposed roadway structures. Seismic effects should be considered in the design criteria of the structures within the study area. The surficial cohesive material overlying the bedrock in the study area is not considered to be susceptible to liquefaction. No variations within the geotechnical resources were found within the I-70 SIU 7 study corridor.

Project SL0057: The geotechnical resources and limitations discussed for SIU #7 continue to be relevant to Project SL0057.

6.7. Wetlands

Is there an impact to this resource?		Yes ☐	No ☒
Change since 2nd Tier EIS	More Impacts ☐	No Change ☐	Fewer Impacts ☒

SIU #7: A Waters of the U.S. and Preliminary Jurisdictional Wetland Determination Summary Report for the SIU #7 project was completed and identified wetlands and waters of the U.S. present throughout the entire project corridor. The DEIS and FEIS indicated impacts to wetlands and streams for Alternative 15.

As was done previously, Level III Investigations, as defined by the United States Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual, were performed to validate the data previously gathered for the Second Tier EIS. The Level III investigations included reviewing data from the U.S. Fish and Wildlife Service (USFWS), National Wetland Inventory (NWI) maps, and the United States Geological Survey topography maps. Field investigations were not performed. In general, all previously identified sites within the SIU #7 corridor under Level III investigations were confirmed.

Summary of Wetlands from the 2002 Desktop Delineation

In general, all wetland sites were identified using MoDOT's Protocol for Identifying and Delineating Wetlands and Stream Impacts for the Interstate 70 Corridor Second Tier Environmental Documents and Preliminary Jurisdictional Wetland Determinations dated January 2002. The 2002 wetland features within the re-evaluation study area include three palustrine emergent wetlands (PEM) totaling 0.43-acres.

Project SL0057: MoDOT Environmental staff have reviewed the project area using a variety of data sources/layers in ArcMap (state streams/rivers, USGS topographic mapping, aerial imagery, etc.).

There are no National Wetlands Inventory (NWI) mapped wetlands in the project area.

Potential Impacts: Based on desktop review of the aquatic resources in the project area, no wetland resources classified as Waters of the U.S. are impacted by the project.

6.8. Streams

Is there an impact to this resource?		Yes ☒	No ☐
Change since 2nd Tier EIS	More Impacts ☐	No Change ☒	Fewer Impacts ☐

SIU #7: As part of the desktop review of the SIU #7 corridor, investigations included reviewing available data from the local, state, and federal agencies. Field investigations were not performed. In a west to east direction, the following streams/creeks, 100-year floodplains, and regulatory floodways are present within the SIU #7 corridor:

- Smith Branch of Clear Fork (floodplain)
- Elkhorn Creek and tributaries (floodplain)
- Little Bear Creek North and tributaries (floodplain)
- Camp Branch of Camp Creek (floodplain)
- Big Creek and tributaries (floodplain and floodway)
- Hickory Lick Creek and tributaries (floodplain and floodway)
- Indian Camp Creek and tributaries (floodplain)
- Peruque Creek and tributaries (floodplain and floodway)

In general, all previously identified sites within the SIU #7 corridor were confirmed.

Project SL0057: MoDOT Environmental staff have reviewed the project area using a variety of data sources/layers in ArcMap (state streams/rivers, USGS topographic mapping, aerial imagery, etc.). The following features show up in or near the project area:

1. Unnamed mapped (state streams layer and topo map) intermittent blue-line tributary starts about 0.2 mi east of Wentzville Parkway north of the I-70 to Wentzville Parkway ramp at approximately -90.870956, 38.810443 Decimal Degrees). This feature flows north (away from project area). This feature appears to be outside the project limits.

2. Unnamed mapped (topo only) intermittent blue-line tributary starting about 0.27 mi west of Route Z and south of I-70 at approximately -90.859941, 38.805595 Decimal Degrees. The stream eventually crosses Route Z and flows south along Route Z before joining Peruque Creek. This feature appears to be outside the project limits.

3. Unnamed mapped (topo only) intermittent blue-line tributary that starts north of I-70 and is crossed by I-70 at approximately -90.859941, 38.805595 Decimal Degrees. This stream joins Peruque Creek about 0.4 mi south of where it is crossed by I-70. This feature is within the project limits.

4. Unnamed mapped (topo only) intermittent blue-line tributary that starts between the I-64 W to I-70 W ramp and I-70 westbound and is crossed by I-70 at approximately -90.843077, 38.806208 Decimal Degrees. The tributary flows south to join Peruque Creek about 0.5 mi south of I-70. This feature is within the project limits.

5. Unnamed mapped (topo only) intermittent purple-line tributary that starts east of Route 61 and is crossed by Route 61 at approximately -90.845380, 38.818755 Decimal Degrees. This feature joins a mapped blue-line intermittent stream about 0.3 mi north of the intersection of Route 61 and Route A. This feature is outside the project area except for where it is crossed by Route 61.

6. Unnamed mapped (topo only) intermittent blue-line tributary that starts at approximately -90.837012, 38.804292 Decimal Degrees, just south of Outer Road 64. This feature flows south, away from the project area. This feature appears to be outside the project limits.

7. Box culvert A4240 is on Route A and is located about 500 feet north of bridge A4237 at approximately -90.807460, 38.807193 Decimal Degrees. This structure spans a branch of Peruque Creek, which is mapped (topo only) as an intermittent blue-line tributary. The tributary flows east, away from the project area. This feature is outside the project limits.

Potential Impacts: Based on desktop review of the aquatic resources in the project area, it appears that this project has the potential to impact three channels that are mapped as intermittent streams in topographic mapping and might be considered jurisdictional: two that are crossed by I-70 and drain to Peruque Creek, and one that is crossed by Route 61 and drains to an unnamed tributary that eventually reaches McCoy Creek to the north. If these features are jurisdictional, it is expected that impacts may be permitted with a Nationwide Permit 14 (Linear Transportation Projects). When final project impacts are known, impacts to streams will be assessed and if necessary, the appropriate Section 404 permit will be obtained.

6.9. Groundwater

Is there an impact to this resource?		Yes ☐	No ☒
Change since 2nd Tier EIS	More Impacts ☐	No Change ☒	Fewer Impacts ☐

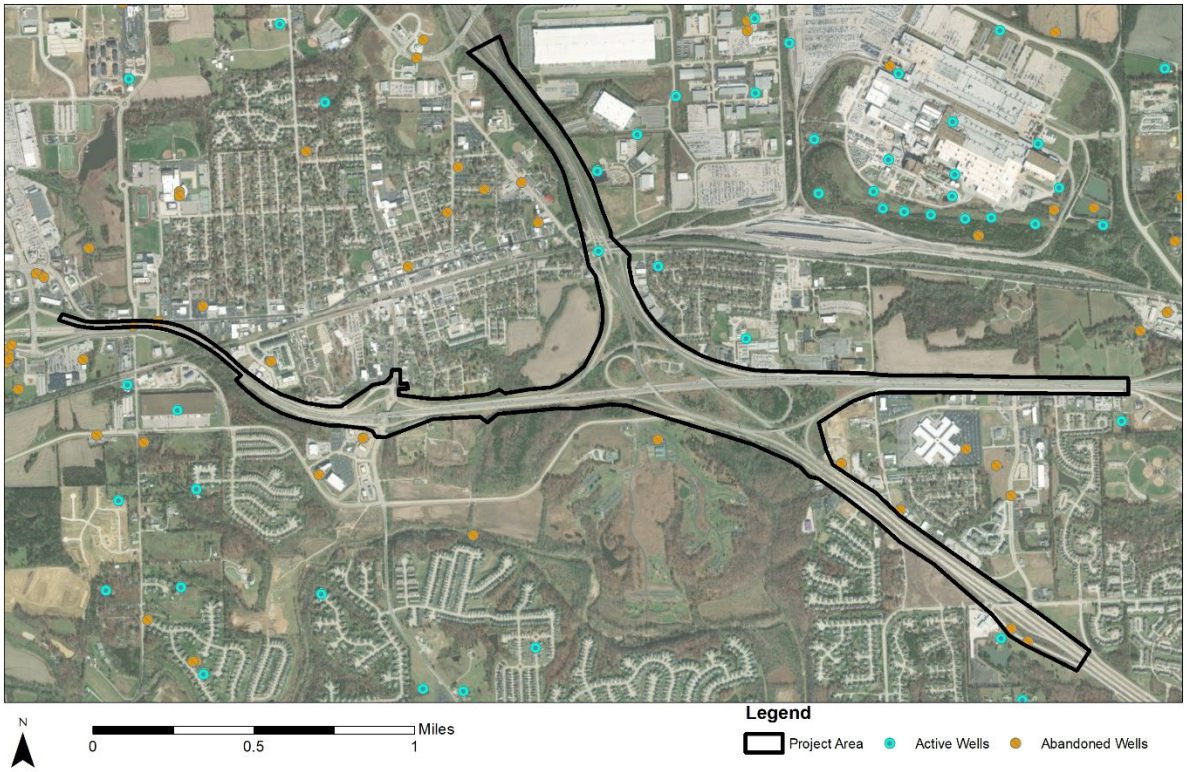
SIU #7: The Cambrian-Ordovician aquifer is the main source of potable water in the study area. The Cambrian-Ordovician aquifer within the SIU #7 has a local freshwater flow system, which is nearly independent of the regional saline-water flow system normally associated with this formation. Water enters this local flow system by leakage from the overlying Mississippian aquifer and by infiltration.

The Tier 2 EIS identified the wells known to exist within the study area. These were identified by Missouri Department of Natural Resources databases cross-referenced with parcel ownership data developed for this project. Property owners whose name matched the well records were called to determine the location of the well on their property. A total of four private wells and two public wells were originally reported for SIU #7.

The Tier 2 EIS reports no impacts to any wells within Alternative 15 of the SIU #7 corridor. Construction activities were not expected to have an adverse impact on the recharge zones for the Cambrian-Ordovician aquifer, the Mississippian aquifer and the alluvial aquifer since the aquifer materials will remain on-site after construction operations. It is further committed that wells encountered during construction will be closed by a registered well driller in accordance with state regulations.

Project SL0057: Relative to well impacts, the most salient factor is the configuration of the project footprint. The footprint of the project has been modified and refined to a smaller footprint than presented in the Tier 2 EIS. According to the MDNR GIS Well database (updated 6-6-2022) there is one active domestic well located in the footprint of the proposed project (**Figure 6**). This well record is from 1989 and is shown within the commuter parking area under US 61 North of East Pitman Ave. Field investigation in this area did not reveal the presence of a well in this location. It is believed this well has been inaccurately mapped and or has been abandoned and filled. No impacts to wells are expected from the project; however, if any wells are encountered during construction, they will be closed by a registered well driller in accordance with state regulations.

Figure 6: MDNR Well Database Sites



Relative to groundwater, construction activities will not have an adverse impact on the recharge zones for the Cambrian-Ordovician aquifer, the Mississippian aquifer and the alluvial aquifer since the aquifer materials will remain on-site after construction operations. Since sizeable dewatering or depressurizing activities are not anticipated during construction, temporary impacts on the groundwater system are not expected or will be minimal in isolated locations such as creeks/stream beds and other low-lying areas. No noteworthy changes in chemical characteristics of the surface material are anticipated and no degradation of water quality entering the aquifer is expected.

6.10. Floodplains

Is there an impact to this resource?		Yes ☐	No ☒
Change since 2nd Tier EIS	More Impacts ☐	No Change ☐	Fewer Impacts ☒

SIU #7: A review of the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) data and mapping was performed to review for floodplains and regulatory floodways within the SIU #7 corridor. In general, all previously identified floodplains and floodways within the SIU 7 corridor were confirmed. Within SIU #7, in the vicinity of Alternative 15, the Tier 2 EIS identified 2.78 acres of 100-year floodplain impact to an unnamed tributary of Peruque Creek.

Project SL0057: The refined preferred alternative for the project according to FEMA-NFHL mapping, there are no areas of 100-year floodplain or a regulatory floodway in the project area. No impacts would be anticipated to a 100-year floodplain or floodway. Floodplain permitting is not required for this project.

Furthermore, according to ArcMap GIS FEMA buyout layers, there are no buyout sites in or around the project limits. The refined preferred alternative is not anticipated to result in development on any FEMA buyout sites.

6.11. Air Quality

Is there an impact to this resource?	Yes ☐	No ☒
Change since 2nd Tier EIS	More Impacts ☐ No Change ☒	Fewer Impacts ☐

SIU #7: Transportation can contribute to all the nation's regulated air pollutants. Transportation conformity, as required under the Clean Air Act, ensures that federally funded or approved transportation plans, programs, and projects conform to the air quality objectives established in state implementation plans. The Clean Air Act, as administered by the USEPA, specifies environmental policies and regulations to promote and ensure acceptable air quality. These policies and regulations were adopted in the Final Conformity Rule (40 CFR Parts 51 and 93). USEPA delegates authority to the MDNR for monitoring and enforcing air quality regulations in Missouri. MDNR developed the Missouri State Implementation Plan to ensure conformity with the rule. The current National Ambient Air Quality Standards (NAAQS) were updated by the USEPA in 2016. Standards highlighted are different from those reported in the Second Tier EIS. USEPA's Green Book provides information regarding non-attainment areas for the criteria pollutants. This section only discusses NAAQS attainment status that has changed since December 2004, when the Second Tier EIS was prepared.

Project SL0057: Overall, EPA regulations for vehicle engines and fuels will cause emissions to decline over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOVES3 model forecasts a combined reduction of 76 percent in the total annual emissions rate from 2020 to 2060 for the priority Mobile Source Air Toxics (MSAT), even though vehicle-miles of travel (VMT) are projected to increase by 31 percent (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, FHWA, January 18, 2023).

The project area is located within the East-West Gateway Council of Governments (EWGCOG) Metropolitan Planning Organization (MPO), and under Region 7 of the U.S. Environmental Protection Agency. The project is individually listed in the EWGCOG's FY 2023-2026 Transportation Improvement Program (TIP) with implementation funding programmed in FY 2025. The EWGCOG approved the 2023-2026 TIP on August 31, 2022, and the report makes the determination that the region's transportation plan and program satisfy all applicable criteria and procedures in the conformity regulations.

St. Charles County was in non-attainment for 8-hour Ozone at the time of the 2006 FEIS/ROD associated with the National Ambient Air Quality Standards (NAAQS). The 8-hour Ozone standards were altered in 2008 and again in 2015. St. Charles County was redesignated from non-attainment to maintenance in 2018 but has since been redesignated to non-attainment status.

Construction activities may result in short-term impacts on air quality, including direct emissions from construction equipment and trucks, fugitive dust emissions from site demolition and earthwork, and increased emissions from motor vehicles and haul trucks on local streets.

6.12. Noise

Is there an impact to this resource?	Yes ☒	No ☐
Change since 2nd Tier EIS	More Impacts ☐ No Change ☒	Fewer Impacts ☐

SIU #7: For the entirety of SIU #7, the land uses in the I-70 corridor are largely the same as they were when the Second Tier EIS was prepared. Further, current traffic volumes were also within the range used during the Second Tier EIS. Therefore, noise environs and anticipated impacts within the SIU #7 corridor are expected to be within the same ranges as previously reported.

Project SL0057: FHWA procedures for highway noise analysis and abatement are contained in 23 CFR 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise. FHWA has given State DOTs flexibility in implementing this noise standard. Primary sources of highway traffic noise are tire-pavement interface, engine noise, and exhaust noise. In very general terms, the lower threshold of a highway noise impact is roughly the point at which interference with normal human speech is appreciable. The MoDOT Noise policy describes the approach for the implementation of 23 CFR 772. This policy has included revisions since the FEIS/ROD was approved; however, the evaluation and consideration of noise abatement has not substantially changed.

Detailed noise analysis was subsequently completed as design progressed. This analysis was conducted to evaluate the potential noise impacts associated with the proposed improvements. The noise analysis utilized computer models created with the FHWA TNM v.2.5 to predict existing and future noise levels and define impacted receptors within the project area. (**Appendix C**)

The results of the noise analysis predict 32 traffic-related noise impacts associated with 8 noise study areas would occur under the refined alternative. Noise abatement was analyzed for the project; however, no barriers were determined feasible and reasonable because either the impacted receptor(s) were not acoustically feasible, or the cost-effectiveness criteria was not met per MoDOT policy.

As required by 23 CFR 772.19, MoDOT considered the temporary increase in noise levels from construction. Temporary and localized noise level increases would occur due to the proximity of noise-sensitive receptors to project construction activities. However, noise from construction equipment will be minor and temporary. It is expected that those passing by and working in proximity to construction work will experience interference with speech communication.

MoDOT has special provisions for construction which require that all contractors comply with all applicable local, state, and federal laws and regulations relating to noise levels permissible within and adjacent to the project construction site. MoDOT will ensure construction specifications require all construction equipment to be in good working order. Construction equipment is required to have mufflers installed in accordance with the equipment manufacturers' specifications. Overall, noise impacts from construction are expected to be minor and occur infrequently.

6.13. Visual Quality

Is there an impact to this resource?		Yes ☐	No ☒
Change since 2nd Tier EIS	More Impacts ☐	No Change ☒	Fewer Impacts ☐

SIU #7: This section describes the existing visual resources and impacts that result from the construction, operation, and maintenance of the project. The methodology for the analysis of visual resources is governed by the Guidelines for the FHWA Visual Impact Assessment of Highway Projects and American Society of Landscape Architects' visual assessment guidelines. The criteria used to determine visual quality ratings are vividness (visual power), intactness (visual integrity), and unity (visual coherence). Visual impact is a function of the viewer's response to the visual environment. The two primarily affected groups are viewers who use the project facility (drivers) and people who have a view of the project from an adjacent viewpoint (non-drivers)

As discussed in the Tier 2 EIS, the current highway's path through the landscape has already been established and has irrevocably impacted the surrounding landscape. The project area does not contain any notable viewsheds. The different alternatives are all along the current alignment, with only slight variation among them. Variation of visual impacts among the different alternatives will be minimal from both a driver's (view from the road) and occupants' (viewers of the road) point-of-view, based on the current aesthetic value of the surrounding environment.

Project SL0057: Relative to Alternative 15 the visual environment is largely unchanged since the Tier 2 EIS. Changes within the project area have been very minor. Within the vicinity of the project several residential developments have been constructed as the County has experienced significant growth around the I-70/I-64/US 61 interchange area. This project consists primarily of widening and reconfiguring the existing ramps at this interchange. Visual changes will be negligible.

6.14. Threatened and Endangered Species and Migratory Birds

Is there an impact to this resource?		Yes ☒	No ☐
Change since 2nd Tier EIS	More Impacts ☐	No Change ☒	Fewer Impacts ☐

SIU #7: Because much of the land near and adjacent to the I-70 Corridor already exhibits appreciable amounts of disturbance and/or development, the Second Tier EIS reported that," there is minimal habitat to support wildlife and aquatic fauna, and there is no evidence of the presence of threatened or endangered species." The potential for secondary and cumulative impacts to listed threatened and endangered species in SIU #7 was considered to be low. Additional commitments were included as part of this re-evaluation. The overall impacts are considered to be "unchanged" relative to the project design; however, revisions to resource agency policies since the ROD resulted in the need to include additional commitments to the resources.

Project SL0057: The SL0057 Project was reviewed under Section 7(a)(2) of the Endangered Species Act. The review included use of the United States Fish and Wildlife Services (USFWS) Information for Planning and Conservation (IPaC) online review tool. IPaC was conducted for federally listed threatened and endangered (T&E) species occurring in the Project SL0057 Limits on August 9, 2021 (Project Code: 2023-0059253) and updated further on March 23, 2023; July 3, 2023; and July 29, 2024. The IPaC auto-generated report is attached to this report in **Appendix D**. Six species were identified in **Table 5**.

Table 5: Federally Listed Species Project SL0057, St. Charles Co, MO

Species	Common name	Status
Myotis grisescens	Gray Bat	Endangered
Myotis sodalis	Indiana Bat	Endangered
Myotis septentrionalis	Northern Long-eared Bat	Endangered
Perimyotis subflavus	Tricolored Bat	Endangered*
Danaus plexippus	Monarch Butterfly	Candidate
Boltonia decurrens	Decurrent False Aster	Threatened
		** Proposed*

No critical habitats for these species were indicated in the IPaC report. The following determinations have been made for these species:

Indiana bat (IBat), Northern long-eared bat (NLEB), Gray bat, and Tricolored bat

Indiana bats and Northern long-eared bats hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in wooded areas.

Gray bats are cave obligate species which congregate in maternity or bachelor colonies in the summer utilizing dome cave and mine habitat, and mixed colonies during winter hibernation in vertical or pit type caves and mines, utilizing mainly stream corridors for foraging spring through fall.

The tricolored bat (*Perimyotis subflavus*) is one of the smallest bats native to North America. The once common species are found in caves and mines during the winter, although in the southern United States, where caves are sparse, tricolored bats are often found roosting in road-associated culverts. During the spring, summer and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves.

Review of the Missouri Department of Conservation (MDC) Natural Heritage Database (updated November 2022) and Missouri Speleological Survey (MSS) Cave Database (updated February 2022), shows the nearest caves to the project area are about 4.7 miles northwest (SCH014) and 8 miles southwest (SCH021). Cave SCH014 has some older records (1980 and 2011) for tricolored bat. Cave SCH021 has no biological records. The nearest bat record is an Indiana bat mist net record from 2015 about 4.4 miles south. About 8 miles south are records for both northern long-eared and Indiana bats. Considering the distance of the nearest known cave, this project is not expected to impact any known caves.

There are multiple bridges within the project area. The bridges are not expected to provide suitable roost habitat for the listed bats due to the volume of traffic under the bridges and on the bridge deck. MoDOT's Transportation Management System (TMS) was used to review photos of the bridges that were taken during routine inspections. Google Earth streetview imagery was also used to view the underside of the bridges in the project area. The following observations were made:

1. A2766, Wentzville Parkway over Route 61 – TMS photos from 2019-2021 and Google Earth streetview imagery dated 07/2022 and 08/2022 were viewed. Metal girders, which are not ideal for roosting. Location is not ideal for roosting. No signs of bats using the bridge for roosting are visible in photos or streetview imagery.

2. A5406, Route 61 South ramp to Route 40 West/I-70 West – TMS photos from 09/2021 and Google Earth streetview imagery dated 08/2017 were viewed. Concrete girders, but the location of bridge is not ideal for roosting. No signs of bats using the bridge for roosting are visible in photos or streetview imagery.

3. A2755, Route 61 South over Pitman Ave/Pearce Blvd – TMS photos from 09/2021 and Google Earth streetview imagery dated 08/2018 were viewed. Metals girders, which are not ideal for roosting. Location is not ideal for roosting. No signs of bats using the bridge for roosting are visible in photos or streetview imagery.

4. A2756, Route 61 North over Pitman Ave/Pearce Blvd -- TMS photos from 09/2021 and Google Earth streetview imagery dated 08/2018 were viewed. Metals girders, which are not ideal for roosting. Location is not ideal for roosting. No signs of bats using the bridge for roosting are visible in photos or streetview imagery.

5. A2031, I-64 West to I-70 West – TMS photos from 2017-2021 and Google Earth streetview imagery dated 09/2022 were viewed. Slab bridge. No signs of bats using the bridge for roosting are visible in photos or streetview imagery. Photos are older but construction of bridge and location make it less than ideal for roosting.

6. L0624, Route 61 South over I-70 -- TMS photos from 2019-2021 and Google Earth streetview imagery dated 10/2022 were viewed. Metals girders, which are not ideal for roosting. Location is not ideal for roosting. No signs of bats using the bridge for roosting are visible in photos or streetview imagery.

7. A2543, I-64 East to I-70 East -- TMS photos from 2019-2021 and Google Earth streetview imagery dated 10/2022 were viewed. Metals girders, which are not ideal for roosting. Location is not ideal for roosting. No signs of bats using the bridge for roosting are visible in photos or streetview imagery.

8. A6755, Prospect Rd over I-64/Route 40/Route 61 -- TMS photos from 2019-2021 and Google Earth streetview imagery dated 09/2022 was viewed. Concrete girders, but the location of bridge is not ideal for roosting. No signs of bats using the bridge for roosting are visible in photos or streetview imagery.

9. A4237, I-70 West over Route A -- TMS photos from 2019-2021 and Google Earth streetview imagery dated 10/2021 were viewed. Concrete girders, but the location of bridge is not ideal for roosting. No signs of bats using the bridge for roosting are visible in photos or streetview imagery.

10. A4236, I-70 East over Route A -- TMS photos from 2019-2021 and Google Earth streetview imagery dated 10/2022 were viewed. Concrete girders, but the location of bridge is not ideal for roosting. No signs of bats using the bridge for roosting are visible in photos or streetview imagery.

11. A4323, I-70 West/Route 40 West over Route Z -- TMS photos from 2019-2021 and Google Earth streetview imagery dated 07/2022 were viewed. Concrete girders, but the location of bridge is not ideal for roosting. No signs of bats using the bridge for roosting are visible in photos or streetview imagery.

12. A4320, I-70 East/Route 40 East over Route Z -- TMS photos from 2019-2021 and Google Earth streetview imagery dated 07/2022 were viewed. Concrete girders, but the location of bridge is not ideal for roosting. No signs of bats using the bridge for roosting are visible in photos or streetview imagery.

In summary, no structures within the project area are suitable for roosting by the listed bats. There were no signs of bats or bats roosting in photos in TMS or Google Earth streetview imagery at any of the bridges. Although many of the structures are constructed with concrete girders, they are not ideal for roosting due to traffic volume and noise; furthermore, all but one of the structures span a highway rather than a riparian corridor. This project will not impact structures that are being used, or are expected to be used, for roosting by the listed bat species.

Based on review of Google Earth aerial imagery and anticipated project limits, this project is expected to result in some tree clearing. A total of 15.78 acres of clearing between 0-100 feet from the roadway and a total of 1.99 acres of clearing between 100-300 feet from the roadway is expected. Some of this acreage appears to be shrubby trees or mostly cedars, but all acreage was presumed potentially suitable and winter tree clearing (between November 1 and March 31) will be required for the project. A Winter Tree Clearing Job Special Provision (JSP), requiring removal of all suitable roost trees between November 1 and March 31, will be included in the contract.

The USFWS IPaC determination key was filled out on July 7, 2023 and a determination of "likely to adversely affect" was made for Indiana and northern long-eared bats. Due to the presence of two mapped intermittent streams in the project area that may have some tree removal, a "may affect, not likely to adversely affect" was made for gray bats. Using the current estimated area of tree clearing and mitigation calculation guidelines, this project will require a mitigation payment to an approved USFWS instrument. **See Environmental Commitment #6.**

On July 27, 2023, an email was sent to USFWS requesting concurrence with the IPaC consistency letter and other species determinations. A concurrence letter was received on August 2, 2023. The Indiana Bat In-Lieu Fee Coordinator with The Conservation Fund shall be contacted to arrange for mitigation payment prior to receiving federal construction authorization.

For tricolored bat, this project will not jeopardize the continued existence of tricolored bat. MoDOT will coordinate with USFWS on tricolored bat as the project progresses and the species' status changes.

A Winter Tree Clearing JSP, requiring removal of all suitable roost trees between October 16 and March 31, will be included in the contract. **See Environmental Commitment #6.**

Decurrent false aster

Decurrent false aster may inhabit floodplains with moist sandy soil, areas along shores of lakes and banks of streams, prairie wetlands, and disturbed lowland areas. Review of the Heritage Database shows no records for decurrent false aster in or near the project area. This project will not impact suitable habitat. This project will have no effect on decurrent false aster.

Monarch butterfly

There are two Monarch butterfly populations in North America, east and west of the Rocky Mountains. These populations migrate to overwintering sites in Mexico and California. Milkweed is an obligate host plant for eggs and larvae, and adult butterflies requires a diversity of blooming nectar sources during breeding and migration. Per guidance received from USFWS on 01/05/2021, conferencing for monarchs is not required unless MoDOT is receiving funding from the USFWS. Since that is not the case with this project, MoDOT has not made an effects determination for this species.

Migratory Birds

Based on review of Google Earth street level imagery of the project area (dated 2001 to 2019), existing structures within the project area show no historical signs of nesting by migratory birds. These are urban bridges with high traffic volumes and nearly continuous high decibel noise. Future nest construction is highly unlikely; the refined preferred alternative is not expected to impact nesting migratory birds. Based on review of the MDC Natural Heritage Database (updated July 2023), there are no eagle nest records in the project area. ***See Environmental Commitment #22.***

6.15. Historic and Archaeological Sites

Is there an impact to this resource?	Yes ☐	No ☒
Change since 2nd Tier EIS	More Impacts ☐ No Change ☐	Fewer Impacts ☒

SIU #7: Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires federal agencies to consider the effects on historic properties that their projects may cause. Historic properties are generally divided into architectural resources and archaeological resources. The National Register of Historic Places (NRHP) is the official list of the Nation's historic places worthy of preservation. Authorized by the NHPA, the National Park Service's National Register of Historic Places is part of the national program to protect America's historic resources. Archaeological investigations conducted during the First Tier EIS identified a total of 158 previously recorded archaeological sites within the SIU #7 portion of the I-70 corridor. Of these known sites, seven were located in areas that could be potentially impacted alternatives under consideration.

Properties can be eligible for listing on the NRHP if they possess significance in American history, architecture, archaeology, engineering or culture, and if they retain integrity of location, design, setting, materials, workmanship, feeling and association. An architectural survey was conducted within the area of potential effect (APE). That included the project footprint and 50 to 100 feet on either or both sides of the footprint, depending on the proposed improvements and whether the area is urban or rural. Consultations between ARC, MoDOT and SHPO staff resulted in a written methodology, titled I- 70 Tier 2 Cultural Resources-Architectural Survey Methodology (Architecture Methodology), approved by the SHPO on March 5, 2003.

For potentially historic bridges, a streamlined bridge methodology was developed in conjunction with the SHPO and MoDOT Cultural Resources staff. The bridge methodology uses the same APE as the architectural survey and defines bridge resources as highway, railroad and pedestrian bridges, viaducts and culverts. It excludes metal, plastic and concrete pipes, and most bridges and culverts under 20 feet (6 m) in roadway length. There are no NRHP-eligible bridges identified within the APE within SIU #7.

Project SL0057: Two historic architectural resources were identified in the DEIS within Alternative 15 of SIU 7 corresponding to the area of the I-64/I-70/US-61 interchange project area. The first resource is the Wentzville Historic District (7SC0885-7SC0886, 7SC0891-7SC0893, 7SC1131-7SC1139); the second was the Tudor Revival complex (7SC0938) located southeast of the Route 40/61 and I-70 interchange. For project SL0057, a cultural resources survey report was completed which included both architectural and archaeological surveys (**Appendix E**).

Architectural Resources: The Wentzville Historic District was outside of the APE thus there was no potential to impact this resource. The Tudor Revival complex had been demolished since the 2006 reporting. The architectural survey determined no National Register eligible Historic Properties were present in the APE.

Archaeological Resources: The field surveys identified a new site (23C2269) composed of a stone-lined well believed to be associated with the historical location of a farmstead. This site was considered unevaluated and will be treated as potentially eligible for inclusion with the NRHP and will require further investigation prior to construction. SHPO concurred with the findings (July 28, 2023), and MoDOT has developed a programmatic agreement with SHPO to address the additional testing (January 23, 2024). With respect to potential Section 4(f), there is little or no potential for the presence of archeological resources that have value for preservation in place, and any subsequent Section 4(f) compliance requirements would be identified through the processes established in executed Section 106 agreement.

6.16. Public Lands

Is there an impact to this resource?	Yes ☐	No ☒
Change since 2nd Tier EIS	More Impacts ☐	No Change ☒	Fewer Impacts ☐

SIU #7: Section 4(f) of the Department of Transportation Act of 1966 protects publicly owned land of a public park, recreational area, or wildlife and waterfowl refuge of national, state, or local significance or land of a historic site of national, state, or local significance. As noted in 23 CFR 774.3, a transportation project approved by FHWA may not cause anything beyond a minor (de minimis) impact to a Section 4(f) property unless there is no feasible and prudent avoidance alternative and all possible planning to minimize harm is conducted. The Land and Water Conservation Fund Act (LWCF) of 1965 provided funding for outdoor public recreational purposes. Section 6(f) of the Act provides for the protection of those resources from conversion to other non-recreational uses.

There are several parks located within the SIU #7 corridor. Those identified in the Second Tier EIS are valid and no new additional parks have been added within a half-mile of the SIU #7 corridor since the completion of the Second Tier EIS. Additionally, no new conservation areas have been added.

Project SL0057: Two public parks/recreational areas are located within or adjacent to the project area. Quail Ridge Park, owned and managed by St. Charles County is within the southwestern quad of the project area. This Park was developed in part with funds from the Land and Water Conservation Funds (LWCF) Program. Memorial Park owned and managed by the City of Wentzville, is located at 1419 Kathleen Dr in the northeastern quadrant of the interchange, just outside the project area in a nearby residential area. This park was also developed in part with LWCF funding.

The refined preferred alternative is anticipated to neither require new right of way or easements from either park or constitute uses of any recreational amenities. No Section 4(f) uses or Section 6(f) impacts are anticipated for this project.

6.17. Hazardous Material Sites

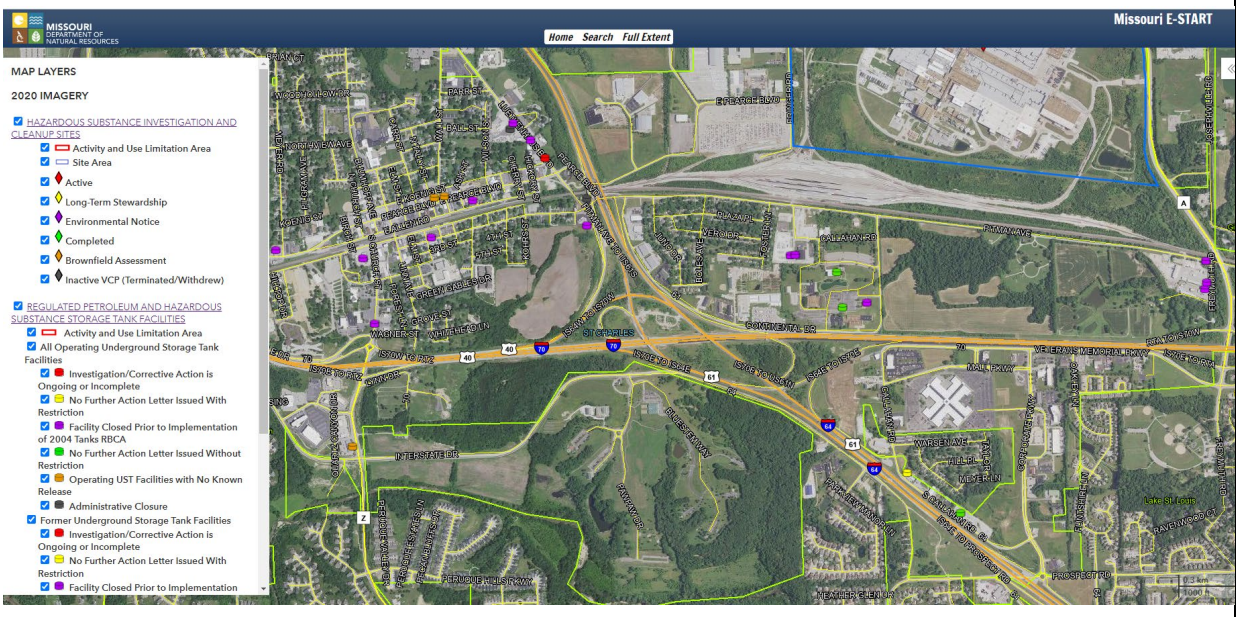
Is there an impact to this resource?		Yes ☐	No ☒
Change since 2nd Tier EIS	More Impacts ☐	No Change ☒	Fewer Impacts ☐

SIU #7: Hazardous materials are defined in a number of ways, depending on the applicable regulatory programs. In general, they are dangerous or potentially harmful to human health or the environment when not managed properly. A public records review was conducted to locate properties known to contain or possess the potential for contamination along the I-70 SIU #7 study area. A reconnaissance survey was also conducted to identify items or conditions that might indicate the presence of potential hazardous materials contamination. The record review focused on reasonably obtainable and publicly available records, including federal and state records. No sites with a high potential to impact the location of the highway were found within the I-70 SIU #7 study corridor.

Based on the results of a 2020 evaluation of the Missouri Department of Natural Resources MDNR E-START database and a review of Google Earth imagery, no additional sites of concern within or directly adjacent to the project corridor are expected.

Project SL0057: MoDOT's goals for addressing hazardous materials are to avoid unacceptable cleanup costs and legal liability and to comply with federal and state laws and regulations regarding cleanup. **Figure 7** displays the MDNR online E-START mapping data for the study area. The applicable reference guides are available at: https://dnr.mo.gov/waste-recycling/long-term-stewardship-lts/environmental-site-tracking-research-tool-e-start/downloadable-data

Figure 7: ESTART Sites



As a follow up to the review of the E-Start database, additional regulatory databases were reviewed, a sunshine request was submitted to the MDNR to obtain further available information on past releases and a field reconnaissance was conducted in 2023 to determine if any additional phase II testing would be necessary or if any unique JSPs will be required for inclusion in the construction document.

A total of 24 REC sites were investigated and the results of the investigation concluded there is no recommendation for Phase II testing under the current preliminary design footprint. Should the design plans be altered to include excavation on the property associated with Winners Quick Mart (Facility ID 0012490), additional soil testing may be recommended depending on the extent of impact and this report should be revised accordingly (**Appendix F**).

With consideration of the site conditions investigated, it was determined soils may be left on site for the reported planned use of the site. Soils hauled off site should be reused or disposed of in a manner consistent with federal, state, and local regulations. Removal of soils that exceed acceptable limits for COCs may require additional testing, permitting, and/or certified special waste haulers. It was further determined that the identified conditions of the various RECs can be appropriately addressed through the use of a single JSP.

The potential to encounter hazardous wastes from sites unknown to MoDOT should always be a consideration. MoDOT will ensure that any unknown hazardous waste sites found during project construction will be handled according to Federal and State Laws and Regulations. If regulated solid or hazardous wastes are found during construction activities, MoDOT's construction inspector shall direct the contractor to cease work at the suspect site. The construction inspector will contact the appropriate environmental specialist to discuss options for remediation. The environmental specialist, the construction office, and the contractor will develop a plan for sampling, remediation, and continuation of project construction. Independent consulting, analytical and remediation services will be contracted, if necessary. The MDNR and EPA will be contacted for coordination and approval of required activities.

6.18. Mitigation and Environmental Commitments

This section presents all the Environmental Commitments associated with the SIU #7 EIS. How they apply to Project SL0057 is placed in ***bold/italics***.

1. Prior to any further project development in the vicinity of the Lake St. Louis Boulevard interchange, MoDOT will conduct a re-evaluation of current and projected future land uses and future traffic projections. ***This commitment is not applicable because the Lake St. Louis Boulevard interchange is not affected by the* SL0057 *project***.

2. The mobile home park located near milepost 195 will not be impacted by the Preferred Alternative. ***This commitment is not applicable because the project is not located near milepost 195.***

3. No buildings will be removed from the High Hill Historic District. ***This commitment is not applicable because the project is not located near the High Hill Historic District.***

4. Native American Tribes or Bands with an interest in the study area will be notified upon inadvertent discoveries of human remains, historic objects or funerary objects**.** ***This is a Standard Construction Commitment and is applicable to the project and will be carried forward.***

5. Prior to project development, the possible cemetery noted in the archaeological inventory (but outside of the Preferred Alternative) should be surveyed. ***This commitment is not applicable because the***

project is not located near the cemetery. An archaeological inventory was conducted for the project and no evidence of any cemeteries was discovered.

6. A survey to identify trees suitable for Indiana bat roosting habitat will be performed in the area of the Preferred Alternative. To avoid potential impact to the bat during the period when the bat will most likely use these habitats, MoDOT will not cut suitable maternity roost trees during the period April 1 to September 30. If cutting of suitable trees during that period is unavoidable, biologists will perform a complete assessment of the habitat in advance to certify that the habitat is not currently in use by the bat.
   New Commitment: MoDOT will ensure a Winter Tree Clearing JSP will be included in the contract (restricting removal of all suitable roost trees between October 16 to March 31), and complete mitigation payment via the Conservation Fund in-lieu fee payment prior to the start of construction. The total payment will be determined based on the revised tree clearing area in the next project phase; the fee estimate will be consistent with the USFWS range-wide in-lieu fee program instrument for the Indiana and Northern Long-eared bats (most recent published fee estimate [2023] applies $7,660 per acre).

7. Stream flows will not be interrupted and all temporary in-channel fills that have the potential to impound water will be contained within culverts. ***This is a Standard Construction Commitment which is applicable to the project and will be carried forward.***

8. Wildlife crossings will be investigated in final design, if applicable. ***Wildlife crossings were considered but were not appropriate for this system interchange. Therefore, this commitment is not applicable to the project.***

9. MoDOT will consider the appropriate currently adopted design criteria and design standards. ***This is a Standard Construction Commitment applicable to the project and will be carried forward.***

10. MoDOT will incorporate suitable and reasonable Intelligent Transportation System (ITS) elements into the Improve I-70 program. ***Additional ITS elements were evaluated but not warranted as part of the safety or operational improvements in this portion of the corridor.***

11. MoDOT will consult with emergency responder agencies involved in traffic incident management on I-70 in future design and maintenance of traffic plan development as the Improve I-70 program progresses. ***This is a Standard Construction Commitment which is applicable to the project and will be carried forward.***

12. MoDOT will construct frontage roads for the purposes of maintaining existing local service connections and maintaining existing access to adjacent properties, where warranted. The frontage roads as proposed in the Frontage Road Master Plan may be constructed in the future as needs arise and as funding becomes available. Where reasonably possible, any eight-foot (2.4 meters) paved shoulder along new frontage road construction could serve as a one-way bicycle facility. ***Frontage roads are already in existence within the limits of Project SL0057. The existing frontage roads will be maintained with the project; therefore, this commitment is not applicable to Project SL0057.***

13. MoDOT will develop a maintenance of traffic plan for the construction phases. Through traffic will be maintained along I-70 and at access points to the interstate from cross-roads. It is likely that some interchange ramps and cross-roads will be closed and temporary detours required. Construction schedules, road closures and detours will be coordinated with police forces and emergency services to reduce impact to response times of these agencies. ***Revised Commitment: MoDOT will ensure a Traffic Management Plan (TMP) is included in the construction contract to respond to temporary disruptions in travel patterns and travel time. Once developed, MoDOT will assess the impacts of the TMP within***

the framework of NEPA. If the TMP could result in impacts that were not previously reviewed under NEPA—such as new or additional road closures, access changes, or other circumstances that could cause new or modified impacts to resources, MoDOT's environmental section will review these impacts prior to implementing the TMP. MoDOT will ensure compliance.

14. MoDOT will coordinate with project area businesses regarding access issues, via direct communication throughout the construction period. ***MoDOT will ensure compliance.***

15. MoDOT will coordinate with local public service and utility service providers during the final design phase of the project and during the construction period to minimize infrastructure relocation, modifications and connectivity requirements. ***MoDOT will ensure compliance.***

16. During right of way acquisition and relocations, MoDOT will assure that this will be accomplished in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. MoDOT is committed to examining ways to further minimize property impacts throughout the corridor, without compromising the safety of the proposed facility, during subsequent design phases. ***MoDOT will ensure compliance.***

17. During construction, MoDOT's specifications, Missouri Department of Natural Resources (MDNR) Solid Waste Management Program, and MoDOT's Sediment and Erosion Control Program will all be followed. ***MoDOT will ensure compliance. If an unknown site is encountered during construction, the Contractor will cease work at the site and will take measures as necessary to eliminate or minimize any adverse environmental consequences. The appropriate agencies will be contacted for coordination and approval of required activities.***

18. Through MoDOT's approved Pollution Prevention Plan for the National Pollutant Discharge Elimination System (NPDES), the control of water pollution will be accomplished. The plan specifies berms, slope drains, ditch checks, sediment basins, silt fences, rapid seeding and mulching and other erosion control devices or methods as needed. In addition, all construction and project activities will comply with all conditions of appropriate U.S. Army Corps of Engineers and Missouri Department of Natural Resources permits and certifications. ***MoDOT will ensure compliance.***

19. MoDOT has special provisions for construction which require that all contractors comply with all applicable local, state, and federal laws and regulations relating to noise levels permissible within and adjacent to the project construction site. Construction equipment is required to have mufflers installed in accordance with the equipment manufacturers' specifications. ***MoDOT will ensure compliance.***

20. MoDOT is committed to minimizing lighting impacts. Efficient lighting and equipment will be installed, where appropriate, to optimize the use of light on the road surface while minimizing stray light intruding on adjacent properties***. MoDOT will ensure compliance.***

21. To minimize impacts associated with construction, pollution control measures outlined in the MoDOT Standard Specifications for Highway Construction will be used. These measures pertain to air, noise and water pollution as well as traffic control and safety measures. ***MoDOT will ensure compliance.***

22. MoDOT will review the Natural Heritage Database and coordinate with the U.S. Fish and Wildlife Service periodically during the project development process to identify any new locations of threatened and endangered species. ***MoDOT will ensure compliance and continue to coordinate with USFWS as necessary.***

New Commitment: The migratory bird JSP will be included in the contract as a precaution to ensure appropriate measures are taken, should nests become established on any bridges.

23. Landscaping in the right of way will include native plant species and other enhancements in accordance with the statewide I-70 Corridor Enhancement Plan to the maximum extent possible. In accordance with MoDOT standards, new seed mixes, mulch and plant materials will be free of invasive weedy species to the extent possible. Where appropriate, MoDOT will partner with the Missouri Department of Conservation (MDC) Grow Native program and implement the establishment of native vegetation along highway rights of way. ***MoDOT will ensure compliance. In undeveloped project areas, MoDOT will follow the standard policy of planting cool season grasses adjacent to the right of way and plant warm season natives outside of the clear zone.***

24. MoDOT has developed a Conceptual Wetland Mitigation Plan to compensate for wetland impacts, and appropriate mitigation will be adhered to in accord with the plan and any Section 404 permit(s) acquired. ***MoDOT will ensure compliance. If mitigation is required, MoDOT will mitigate stream and wetland impacts as required. It is expected that any mitigation requirements would be fulfilled through the purchase of credits at a mitigation bank or a payment to an in-lieu fee provider.***

25. MoDOT will continue to coordinate with the SHPO and comply with requirements of the National Historic Preservation Act. ***MoDOT will ensure compliance. MoDOT will continue coordination with SHPO to further investigation of site 23C2269 and follow the approved programmatic agreement between the FHWA, the Missouri SHPO, and the Missouri Highways and Transportation Commission Regarding MoDOT Job Numbers ST0018 and ST0020, J2I3274, J2S3439, J2S3440, J6I0624, J6I3527, J6S3564, and JSL0057.***

26. When trees are removed, MoDOT will implement the tree replacement policy and plant two trees for every tree removed that has a diameter greater than six inches at breast height. ***MoDOT no longer has a tree replacement policy in place. Trees will only be removed from the area required for the bridge and interchange configuration. No open space for planting will be created. As a result, MoDOT will not implement replacement of removed trees.***

27. Where feasible, MoDOT's design process will minimize impacts to floodplains. ***This commitment is not applicable to the project because the project will not affect floodplains.***

28. Mitigation efforts to prevent the rise in flood elevation of each of the water bodies affected will be employed in an effort to obtain a No-Rise Certification permit from the State Emergency Management Agency (SEMA). ***This commitment is not applicable to the project because the project will not affect floodplains.***

29. MoDOT will continue to coordinate with the Natural Resources Conservation Service (NRCS) to determine appropriate mitigation measures for the loss of Conservation Reserve Program (CRP) and Wetlands Reserve Program (WRP) lands. ***This commitment is not applicable to the project because there are no CRP or WRP lands within project limits.***

30. Plans for suitable pedestrian, bicycle and wheelchair access across I-70 will be developed during the design of the interchanges. ***Pedestrian or bicycle accommodations along Interstates 70 and 64, are prohibited. Ongoing coordination efforts will be carried out by MoDOT as the project progresses into more detailed engineering.***

31. The MoDOT Noise Policy will be used to address noise impacts. Where appropriate, possible noise abatement types and locations will be presented and discussed with the benefited residents during the preliminary design phase. Noise abatement measures will be considered that are deemed reasonable, feasible and cost effective. ***Barriers for all impacted receptors within the project corridor were considered; however, no barriers were determined feasible and reasonable because either the***

impacted receptor(s) are isolated, or the number of first-row receptors is insufficient per MoDOT policy. No further action is required on Project SL0057; however, final decisions regarding the construction of noise barriers are made during the final design process. If design changes occur and a new noise policy has been approved since the original noise analysis, with FHWA approval the new policy is to be used for the new analysis and final decision.

32. If there are changes in the project scope, project limits, existing conditions, pertinent regulations or environmental commitments, MoDOT must re-evaluate potential impacts prior to implementation. Environmental commitments are not subject to change without prior written approval from FHWA. ***MoDOT will ensure compliance.***

33. **New Commitment**: **As the project progresses, public meetings and stakeholder meetings will be held to educate stakeholders about the project and to receive input from them. MoDOT will ensure public input opportunities such as these meetings will be sent to local newspaper, television, and radio stations through a press release, social media, and through email notifications.**

34. **New Commitment: For projects that encompass more than one SIU, MoDOT will combine the commitments in the affected SIUs into one document that will be converted into either Job Special Provisions or contract documents.**

35. **New Commitment: Project will include a new shared use path along Route Z at the Route Z interchange to provide vulnerable user connectivity across I-70.**

7.0 Re-Evaluation Conclusion

Impacts identified within Alternative 15 of the I-70 Second Tier EIS, SIU #7 are consistent relative to Project SL0057.

Table 6: Re-Evaluation Summary of Environmental Resource Impacts

Resource	2023 Expected Impact	Change since 2006 EIS
1) Land Use	No	Same
2) Prime Farmland	No	Fewer
3) Right-of-Way Acquisition and Displacements	Yes	Fewer
4) Socioeconomics	No	Same
5) Environmental Justice	Yes	Same
6) Soils and Geology	No	Same
7) Wetlands	No	Fewer
8) Streams	Yes	Same
9) Groundwater	No	Same
10) Floodplains	No	Fewer
11) Air Quality	No	Same
12) Noise	Yes	Same
13) Visual Quality	No	Same
14) Threatened and Endangered Species and Migratory Birds	Yes	More
15) Historic and Archaeological Sites	No	Fewer
16) Public Lands	No	Same
17) Hazardous Material Sites	No	Same

The I-70/I-64/US 61 system interchange has evolved but remains consistent with the original proposed alternative. The social and environmental setting along I-70 in the vicinity of Wentzville has remained relatively unchanged and the modifications of the refined preferred alternative produce fewer impacts than those identified in the original NEPA documents. While the proposed project may result in human or natural resource impacts, these impacts would be permitted and/or mitigated as required.

This re-evaluation document demonstrates that the Second Tier EIS/ROD remains valid. The Selected Alternative for the I-70/I-64/US 61 system interchange continues to meet the Purpose and Need identified in the Second Tier EIS. Therefore, a supplemental study of the EIS is not necessary for the current project.

I-70 Second Tier EIS Re-Evaluation
Section of Independent Utility 7 and Project SL0057: I-70/I-64/US 61 System Interchange
St. Charles County, Missouri

Submitted Pursuant to 42 U.S.C. 4332(2)(c), 49 U.S.C. 303
by the U.S. Department of Transportation
Federal Highway Administration and the
Missouri Department of Transportation

TAYLOR ROBERT PETERS

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Date of Approval	For FHWA	Title

Appendices

Appendix A: Conceptual Report
Appendix B: Public Survey Responses
Appendix C: Highway Traffic Noise Assessment
Appendix D: Threatened and Endangered Species Consultation
Appendix E: Cultural Resources Report & SHPO Documentation
Appendix F: Regulated Substances Report

Appendix A: Conceptual Report

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