DECEMBER 2024

SIU 2
Environmental Assessment Re-Evaluation

Prepared for

MISSOURI DEPARTMENT OF TRANSPORTATION

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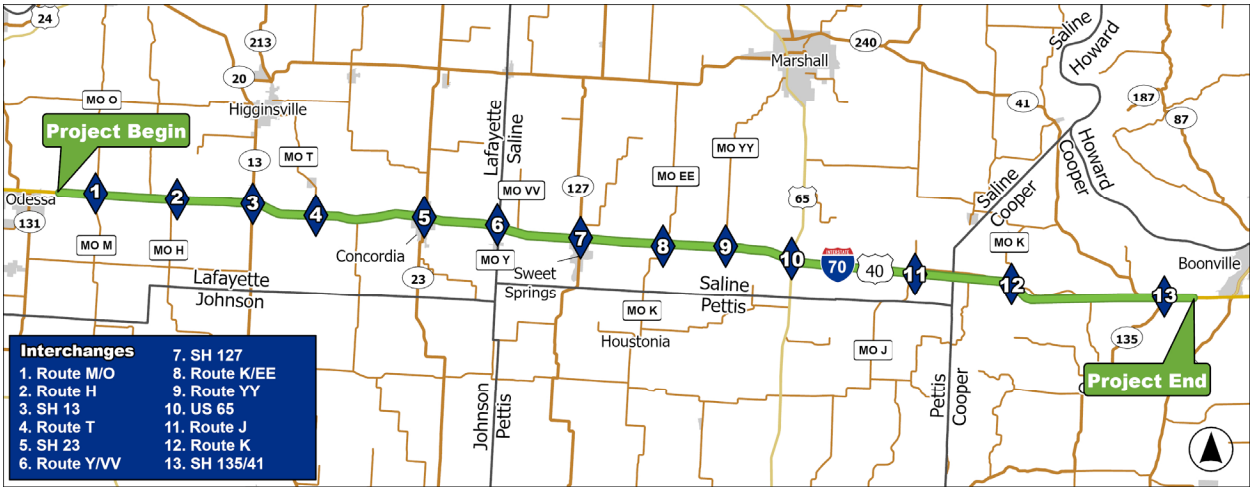
1.0 Introduction

The Missouri Department of Transportation (MoDOT) and the Federal Highway Administration (FHWA) are proposing to construct improvements to Interstate 70 (I-70) between Kansas City and St. Louis to meet the current and future transportation-related needs of this corridor. This document serves as a re-evaluation of the previous National Environmental Policy Act (NEPA) study to ensure the proposed action remains in compliance with environmental regulations and is consistent with the purpose and need of the original document.

The study area for this Environmental Assessment (EA) re-evaluation is located from mile marker (MM) 39.0, one mile east of the Johnson Road interchange in Lafayette County, to MM 99.8, two miles west of the Route 5 interchange in Cooper County. The approximately 60-mile-long study area includes thirteen (13) interchanges and is defined as the entirety of Section of Independent Utility (SIU) 2 of the I-70 corridor, as shown in **Figure 1.1.** SIU 2 is approximately 60 miles in length and includes the MoDOT Job Number J4I1341E as specified in the previous environmental study, now MoDOT Job Number ST0016.

Figure 1.1 SIU 2 Project Location



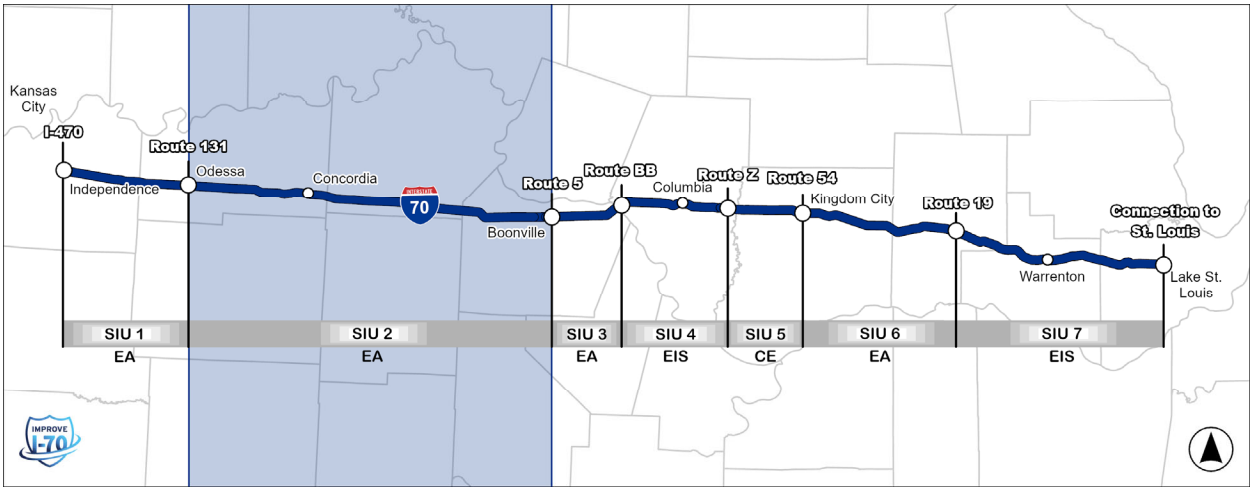
Previous environmental studies related to the proposed improvements along I-70 include the 2001 I-70 Corridor First Tier Environmental Impact Statement (EIS) and Record of Decision (ROD) signed December 18, 2001; the Final 2006 Second Tier EA and Finding of No Significant Impact (FONSI) for the I-70 Section of SIU 2 signed January 12, 2006; and the 2009 Supplemental EIS and ROD for Truck-Only Lanes signed August 14, 2009, which supplement the previous first and second tier studies. The 2009 Truck-Only Lanes ROD was amended on December 5, 2023, and can be found in **Appendix A**.

FHWA and MoDOT's Engineering Policy Guide (EPG) require a re-evaluation when more than three years have passed since the ROD/FONSI was signed or when changes related to the original study have occurred. Due to the extent of time between the current project and the previous environmental studies, a re-evaluation of the 2006 SIU 2 Second Tier EA is required in accordance with NEPA (23 Code of Federal Regulations [CFR] 771.129) and associated laws.

2.0 Background

In the Fall of 1999, MoDOT initiated a tiered environmental decision-making process, referred to as Improve I-70 First Tier Study, to evaluate strategies for improving the I-70 corridor in Missouri between the metropolitan areas of Kansas City and St. Louis. The tiering process allowed for a focus on corridor-wide issues and reduced repetition in environmental documentation. First tier decisions frame and narrow the scope of second tier studies and related decisions. The Second Tier Studies, known collectively as Improve I-70, looked more specifically at the recommended strategies and their local impacts. To ensure an appropriate level of detail, the Improve I-70 Second Tier program divided the interstate into seven different geographic sections, each with its own environmental study and recommendations (**Figure 2.1**).

Figure 2.1 Improve I-70 First Tier Study and Second Tier SIUs



The I-70 Corridor First Tier EIS was prepared to aid in determining the most appropriate type of improvement concept for I-70. The ROD, approved by FHWA in 2001, selected the "Widen Existing I-70 Strategy" as the Selected Alternative. This strategy would improve the existing I-70 corridor by adding one lane in each direction, resulting in three in each direction in rural areas, and a minimum of eight lanes, four in each direction, through Columbia and in the metropolitan areas of Kansas City and St. Louis. The Selected Alternative also included improved access management, reconstruction of the existing roadway to enhance safety and performance, and provisions for future transportation improvements within the median.

The Second Tier approved EA was completed with a FONSI in January 2006, assessing impacts specific to SIU 2, from between Route 131 (not including the interchange) in Odessa to Route 5 (not including the interchange) near Boonville. In general, the Selected Alternative included six 12-foot travel lanes, four 12-foot shoulders, and a median, between 120 to 130 feet wide. In addition to these mainline improvements, 13 interchanges would be reconstructed to meet current access management guidelines, as appropriate.

Building on the work of the first and second tier studies, MoDOT initiated a Supplemental EIS (SEIS) to evaluate the impacts of a new strategy for I-70 consisting of dedicated truck-only lanes. Approved in a 2009 ROD, the Truck-Only Lanes Strategy proposed to construct two truck-only lanes and two or more general purpose lanes in each direction along existing I-70. Depending on the location along the corridor, concrete barriers, buffer separations or grassed areas would separate the truck-only lanes and

general-purpose lanes from each other. This strategy was determined to be consistent with the decisions made in the 2001 ROD, as it would fit within the limits of the previously evaluated footprint, to the extent possible, utilizing the preserved future transportation corridor identified in the Widen Existing I-70 Strategy.

On December 5, 2023, an Amended ROD to the 2009 SEIS was signed by FHWA. In accordance with 23 CFR 771.127(b), the Amended ROD (**Appendix A**) selects the 2001 Final EIS (FEIS) and ROD's Preferred Alternative, widening of the I-70 corridor to six general-purpose travel lanes, which was fully evaluated in the study.

The proposed improvements to SIU 2 are currently possible due to funding provided by the National Highway Performance Program (NHPP) and a discretionary INFRA (Nationally Significant Multimodal Freight & Highway Projects) grant. SIU 2 (ST0016, I-70 from Odessa to Boonville) proposed improvements are included in MoDOT's Statewide Transportation Improvement Program (STIP) for construction in the fiscal years 2025-2029.

3.0 Purpose and Need

As stated in the 2001 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. Subsequently, the 2006 Second Tier EA documented the development of the purpose and need for the SIU 2 improvements and is summarized below. Validation of the purpose and need is provided in the Conceptual Study Report (CSR) in **Appendix B** and the Access Justification Report (AJR) in **Appendix C**.

- **Roadway Design Features** - Upgrade current roadway design features to meet recommended design criteria for I-70 improvements, including interchanges, roadway alignment, cross sections, medians, shoulders, and outer roads.
- **Traffic Safety** – To the greatest extent possible, safety improvements to the travel way will be implemented along SIU 2 and throughout the I-70 corridor to ensure a safe roadway for all users.
- **Transportation System Efficiency** - Capacity and travel time improvements throughout the SIU 2 corridor were selected to improve the general operating conditions of I-70.
- **Address Economic Development and Related Transportation Requirements** - Preserve and improve access conditions to maintain and enhance tourism across Missouri, provide state and regional access for commerce, and maintain economic and fiscal health of communities within SIU 2.
- **National Security** - The enhancements offered by the typical section will enhance the ability of the I-70 Corridor to support the system needs for disaster response and national security.

The 2009 SEIS did not alter the project's purpose and need. Therefore, for the purpose of this re-evaluation, the 2006 Second Tier EA purpose and need was reviewed. The analysis of each purpose and need element is discussed below.

Roadway Design Features.

For the 2006 Second Tier Approved EA/FONSI, MoDOT adopted minimum design criteria. For the purposes of this re-evaluation, the design criteria for I-70 will follow the EPG and provisions of the American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highway and Streets, 2018, 7th Edition, and a Policy on Design Standards - Interstate System, 2016, where possible.

Where possible and to the extent practical, using the agreed upon design guidance, the proposed design improvements will address geometric and safety concerns. These design elements could include wider shoulders, improved interchange performance, improved vertical alignment, superelevation rates, clear zone distance, and improved site distances. See the Conceptual Study Report (CSR) for more detail in **Appendix B**.

Traffic Safety.

In the 2006 Second Tier Approved EA/FONSI, nine years of crash data (1995-2004) were considered as part of the evaluation of the existing facility. This re-evaluation analyzed crash records for the five-year period between 2017 and 2021. A total of 2,110 crashes occurred along I-70 in SIU 2 during the study period. Of those, 14 were fatal. A summary of the total crashes and fatalities is shown in **Table 3.1**. This portion of I-70 has a lower-than-average crash experience compared to similar roadways in the state.

Although SIU 2 is currently performing better than the statewide average, there is still opportunity to improve safety along the corridor. See the CSR (**Appendix B**) for more detail on the crash history of SIU 2.

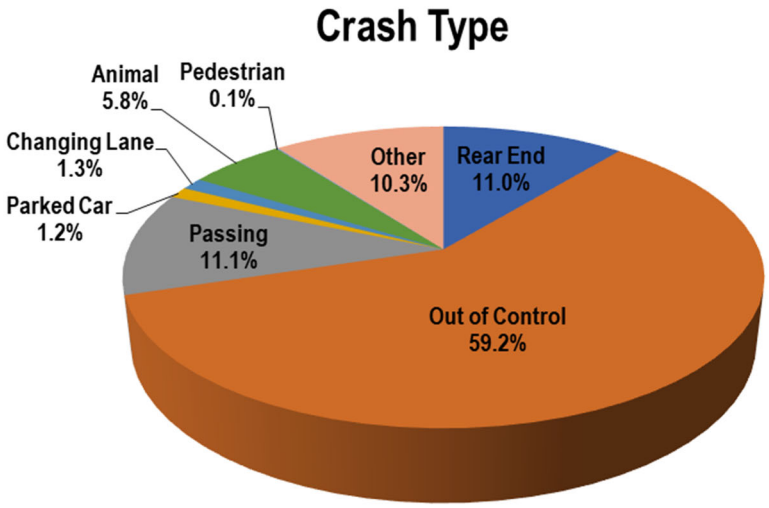
Table 3.1 Summary of Five-Year (2017-2021) Crash Data by SIU 2 Subsection

SIU 2 Subsection	Crashes	Total Fatal	AADT	Length (Miles)	Safety Ratio*
West of Route M/O	94	2	38,826	2.0	0.48
Route M/O to Route H	175	2	36,695	4.0	0.52
Route H to Route 13	140	0	36,239	4.0	0.42
Route 13 to Route T	142	1	34,098	3.0	0.57
Route T to Route 23	212	0	34,082	6.0	0.47
Route 23 to Route Y/VV	151	1	32,229	4.0	0.50
Route Y/VV to Route 127	140	0	31,854	4.0	0.47
Route 127 to Route K/EE	163	1	31,713	5.0	0.45
Route K/EE to Route YY	86	0	31,499	3.0	0.37
Route YY to US 65	163	1	31,516	4.0	0.55
US 65 to Route J	189	2	32,237	6.0	0.44
Route J to Route K	111	0	32,183	5.0	0.30
Route K to Route 135/41	290	3	31,819	9.0	0.47
East of Route 135/41	54	1	33,334	1.8	0.34

*See CSR for explanation of safety ratio.

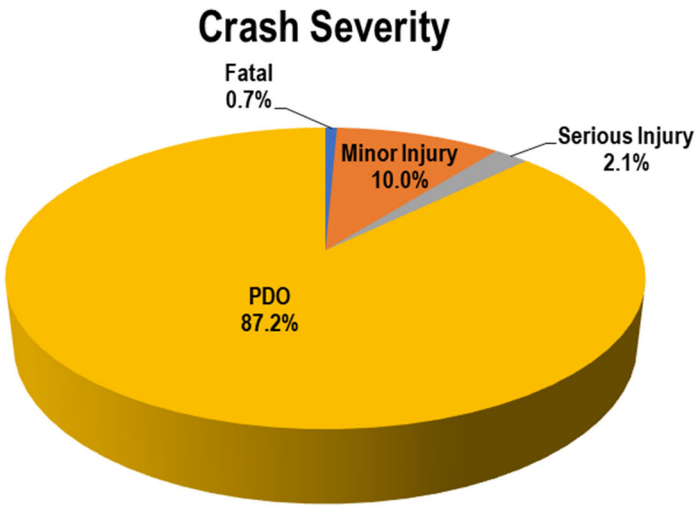
Analyzing crash types and severity throughout a corridor can point to safety issues and help in identifying potential opportunities for mitigation or countermeasures. A breakdown of the total type of crashes and crash severities is shown in **Figure 3.1** and **Figure 3.2,** respectively**.**

Figure 3.1 I-70 Crashes by Type Rating



As depicted in **Figure 3.1**, the top three crash types along the corridor are out of control, rear end, and passing. These types of crashes can be associated with congestion, sudden unexpected speed differential, or vehicles attempting to pass.

Figure 3.2 I-70 Crashes by Severity Rating



Per **Figure 3.2**, the predominant crash severity is property damage only (PDO). Minor injury accounts for approximately 10 percent of crashes, with serious injury at approximately two percent, and fatalities less than one percent.

The proposed improvements in this re-evaluation would have a traffic safety benefit. Many stretches of I-70 were designed with 1960's era standards that cannot sufficiently handle today's increased volumes, speeds, and vehicle types. From the perspective of crash analysis, outdated standards such as narrow median widths, insufficient ramp merge and diverge distances, non-standard clear zones and sight distances contribute to crashes within the SIU 2 corridor. Therefore, safety improvements along SIU 2 are still recommended, and the traffic safety element of the purpose and need remains valid for Project ST0016.

Transportation System Efficiency.

Table 3.2 summarizes traffic volume projections for existing, opening (when construction is complete), and design year conditions by roadway section under the No-Build Alternative. In 2023, existing I-70 traffic volumes ranged from 31,499 to 36,695 vehicles per day (vpd) for passenger vehicles and 13,300 to 15,500 vpd for trucks. In 2030, I-70 traffic volumes are expected to range from 33,400 to 40,000 vpd and eventually reach a range of 39,100 to 49,300 vpd by 2050. Truck volumes in 2030 range from 14,100 to 16,800 vpd in 2030 and reach a range of 39,100 to 49,300 vpd by 2050. Both the overall magnitude of the volumes and the projected increases remain relatively consistent throughout the corridor.

Table 3.2 Annual Average Daily Traffic (AADT) on Mainline I-70

SIU 2 Subsection	2023		2030		2050		% Trucks
	AADT	Truck AADT	AADT	Truck AADT	AADT	Truck AADT	
From Route M/O to Route H	36,695	15,500	40,000	16,800	49,300	20,800	42.1
From Route H to Route 13	36,239	15,300	39,300	16,500	48,000	20,200	42.1
From Route 13 to Route T	34,098	14,400	37,100	15,600	45,400	19,100	42.1
From Route T to Route 23	34,082	14,400	37,000	15,600	45,400	19,100	42.1
From Route 23 to Route Y/VV	32,229	13,600	34,700	14,600	42,000	17,700	42.1
From Route Y/VV to Route 127	31,854	13,400	34,000	14,300	40,500	17,100	42.1
From Route 127 to Route K/EE	31,713	13,400	33,700	14,200	39,900	16,800	42.1
From Route K/EE to Route YY	31,499	13,300	33,400	14,100	39,100	16,500	42.1
From Route YY to US 65	31,516	13,300	33,500	14,100	39,300	16,500	42.1
From US 65 to Route J	32,237	13,600	34,300	14,400	40,200	16,900	42.1
From Route J to Route K	32,183	13,600	34,200	14,400	39,900	16,800	42.1
From Route K to Route 135/41	31,819	13,400	34,000	14,300	39,400	16,600	42.1

Volumes for the crossroads north and south of I-70 at the 13 interchanges within SIU 2 for the 2030 and 2050 design year are summarized in **Table 3.3**. In 2023, volumes ranged from 201 vpd at Route H south of I-70 to 9,043 vpd at US 65 south of I-70. In 2030, traffic volumes are forecasted to range from 400 vpd at Route YY south of I-70 to 12,100 vpd at US 65 south of I-70 and eventually reach 800 vpd and 25,000 vpd by 2050.

Table 3.3 Annual Average Daily Traffic (AADT) on Crossroads

SIU 2 Crossroad	2023 AADT		2030 AADT		2050 AADT	
	N of I-70	S of I-70	N of I-70	S of I-70	N of I-70	S of I-70
Route M/O	1,685	1,318	3,000	2,300	3,900	3,300
Route H	258	471	600	1,500	900	2,600
Route 13	10,608	6,370	12,400	7,600	18,000	13,500
Route T	498	522	1,200	700	1,700	1,600
Route 23	5,807	5,661	6,500	6,600	9,000	9,200
Route Y/VV	518	683	800	1,900	1,200	3,300
Route 127	1,014	2,757	1,400	4,100	2,500	7,100
Route K/EE	636	498	1,300	1,300	2,000	1,700
Route YY	625	130	1,400	400	2,800	800
US 65	7,591	9,043	10,100	12,100	21,100	25,000
Route J	1,044	201	2,500	600	4,600	900
Route K	613	251	2,700	1,200	4,000	1,800
Route 135/41	1,756	2,333	2,600	3,400	4,600	6,500

Using the existing year (2023) and forecasted (2030 and 2050) traffic volumes along I-70, operational analyses were completed to determine the ability of the existing I-70 facility to serve the corridor's travel demands. The analysis was performed using the basic freeway section methodologies from the Highway Capacity Manual. The analysis calculates a level of service (LOS) for freeway sections based upon hourly volumes, percent of heavy vehicles in the vehicle mix, and the freeway section attributes.

Along with the volume of traffic and the number of lanes on a roadway, the roadway terrain also impacts how well traffic flows. Changing grades can cause average truck speeds to be substantially reduced as compared to passenger car and light truck traffic. The reduced speeds result in trucks taking up a larger percentage of the available roadway capacity.

A brief description of the LOS categories is as follows:

- LOS A – uninterrupted traffic flow, lower volumes, and higher travel speeds.
- LOS B – stable traffic flow, increasing traffic and reduced travel speeds due to congestion.
- LOS C – stable flow, increasing traffic, travel speeds and maneuverability restricted by higher volumes.
- LOS D – approaching unstable flow, tolerable travel speeds although considerably affected by changes in operating conditions.
- LOS E – unstable flow, with possible stopped conditions, lower operating speeds than level of service D, volume approaching capacity of the roadway.
- LOS F – unstable flow, with speeds at low or stopped condition for varying times caused by congestion when downstream traffic volumes are at or over the roadway capacity.

Per **Table 3.4**, I-70 within SIU 2 currently operates at a LOS between B and C, with the two western most segments (Route M/O to Route 13) operating at a LOS C. As volumes are projected into 2030 under the No-Build Alternative, the segments decline to a LOS C and D, with the segments from Route M/O to Route Y/VV projected to operate at a LOS D. In 2050, all segments are projected to decline to LOS D and E. Similar to 2023, the segments from Route M/O to Route 13 are forecast to operate less efficiently than the other segments in SIU 2 in 2050. The two segments from Route M/O to Route 13 are projected to operate at a LOS E. As LOS E conditions occur, fewer usable gaps for traffic maneuvers are available in the traffic stream and traffic disruptions can cause queuing.

Table 3.4 Level of Service (LOS) Analysis Summary for Mainline I-70

SIU 2 Subsection	2023 LOS	2030 LOS		2050 LOS	
	Existing	No-Build	Build	No-Build	Build
From Route M/O to Route H	C	D	B	E	C
From Route H to Route 13	C	D	B	E	C
From Route 13 to Route T	B	D	B	D	C
From Route T to Route 23	B	D	B	D	C
From Route 23 to Route Y/VV	B	D	B	D	B
From Route Y/VV to Route 127	B	C	B	D	B
From Route 127 to Route K/EE	B	C	B	D	B
From Route K/EE to Route YY	B	C	B	D	B

SIU 2 Subsection	2023 LOS	2030 LOS		2050 LOS	
	Existing	No-Build	Build	No-Build	Build
From Route YY to US 65	B	C	B	D	B
From US 65 to Route J	B	C	B	D	B
From Route J to Route K	B	C	B	D	B
From Route K to Route 135/41	B	C	B	D	B

Similar to the 2006 EA/FONSI, projected levels of service (LOS) and traffic volumes on all mainline sections of SIU 2 would operate below an acceptable MoDOT standard (LOS D, E, or F, highlighted in **Table 3.4**) by 2050. Per preliminary traffic analyses under the opening year of 2030, the traffic volumes and LOS for the SIU 2 mainline sections and interchanges are projected to operate at unacceptable MoDOT standards from Route M/O to Route Y/VV. Therefore, capacity improvements along SIU 2 are still recommended, and the roadway capacity element of the purpose and need remains valid for Project ST0016. See the CSR (**Appendix B**) for a more detailed traffic analysis.

Address Economic Development and Related Transportation Requirements.

I-70 serves a vital economic role within Missouri and the nation and serves a wide range of economic development interests along the way. Communities along I-70 in SIU 2 have oriented their commercial and industrial development around existing interchanges. These communities depend on the services I-70 offers motorists (commuters, other drivers and truck drivers) and the corresponding tax revenue generated by businesses linked to travelers on I-70. This dependency, especially in relation to the economies and fiscal health of the relatively small communities within SIU 2 makes them highly vulnerable to I-70 conditions.

Another key element of economic health in Missouri is tourism. SIU 2 through its connections with U.S. 65 and Route 13 provides access to the scenic Ozarks region, which includes statewide attractions such as Lake of Ozarks, Harry Truman Reservoir and Branson.

To maintain appropriate service for interstate commerce, adequate access for maintaining economic and fiscal health of communities within SIU 2 and to serve and sustain tourism in Missouri, this element of the purpose and need remains valid for ST0016.

National 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. The SIU 2 portion of the I-70 Corridor will continue to play an important role in responding to natural disasters and threats to national security. The enhancements offered by the typical section would enhance the ability of the I-70 Corridor to support the system needs for disaster response and national security in Missouri and in the nation. The proposed improvements would improve the capacity of the roadway and interchanges and reduce delays caused by the slowdown of commercial vehicles. Therefore, the national security element of the purpose and need remains valid for Project ST0016.

4.0 Preferred Alternative

The Second Tier Approved EA/FONSI to be re-evaluated was completed in 2006 and refined the Selected Alternative presented in the First Tier EIS completed in 2001. For the purposes of alternatives evaluation in the First Tier and Second Tier studies, SIU 2 was segmented into 14 mainline subsections and 13 interchange subsections. The First Tier EIS recommended a Selected Alternative that widened I-70 throughout the corridor. Evaluation of preliminary data during the Second Tier Approved EA supported mainline widening to the north from the western terminus at MM 39 to MM 69, where a transition from north to south was to occur, east of Sweet Springs. The crossover transition was to occur between MM 69.04 and MM 69.79. From this transition point, the remainder of the mainline was to be widened to the south to the eastern terminus of SIU 2 near Boonville.

As part of this re-evaluation, the Selected Alternative from the 2006 Second Tier Approved EA/FONSI was analyzed for the purpose of determining if the design is still the best solution for the project. Design criteria developed for SIU 2 were created using MoDOT's EPG and AASHTO's A Policy on Geometric Design of Highways and Streets, 7th Edition (2018). Practical design was used with an appropriate footprint to allow some future design flexibility.

Four concepts were developed for addition of a through lane to I-70 in each direction. These concepts included the following:

- Selected Alternative from the 2006 Second Tier Approved EA/FONSI
- Widen to the inside of the existing lanes on I-70
- Widen to the outside of the existing lanes on I-70
- Hybrid combination of widen to the inside and outside of existing lanes on I-70

Design Workshop #1, held February 23, 2024, used a weighted matrix with 10 agreed-upon factors and participation from MoDOT's project team to identify the preferred mainline alternative as the "Hybrid Combination" of widen to the inside and widen to the outside. Preliminary development of this alternative suggested widening to the outside was typically applicable in one direction (eastbound [EB] or westbound [WB]) but not the other, except for one section of I-70 between MM 92 to MM 96 where outside widening is proposed in both directions. The preliminary identified areas to widen to the outside include the following:

- WB I-70, from MM 50-52
- WB I-70, from MM 72-74
- EB I-70, from MM 76-81
- WB I-70, from MM 81-96
- EB I-70, from MM 92-96
- EB I-70, from MM 98-99.8

Except for these locations, the preferred alternative will widen I-70 to the inside. This decision provided the CSR team with guidance on the development of the interchange alternatives. The CSR will include design schematics and further information on the alternatives analysis.

Design Workshop #2, held May 21 and 24 and June 18, 2024, reviewed interchange alternatives using a weighted matrix with 10 agreed-upon factors. For each interchange, a "Minimum Build", "Improved Minimum Build", and a "Previous Preferred" alternative were reviewed, as applicable. Details of the alternative carried forward for each interchange within the SIU 2 study area are as follows:

- Route M-O Interchange: The Improved Minimum Build will replace the existing bridge, providing vertical clearance improvements and meeting design speed standards. This alternative will require the outer roads to be reconstructed and full pavement replacement along the entire length of the ramps.
- Route H Interchange: The Minimum Build will include tying the ramp gores into the preferred mainline hybrid alternative and partial ramp reconstruction. The existing bridge will remain in place.
- Route 13 Interchange: The Improved Minimum Build will reflect what is already being constructed (J3P3085H), which includes adding signals at the interchange terminals and a right turn lane on the east bound off-ramp, and the addition of a northbound right turn lane onto eastbound I-70. The existing bridge will remain in place.
- Route T Interchange: The Minimum Build will tie the ramp gores into the preferred mainline hybrid alternative and includes partial ramp reconstruction. The existing bridge will remain in place.
- Route 23 Interchange: The Improved Minimum Build will provide vertical clearance improvements, tie the ramp gores into the preferred mainline hybrid alternative with partial ramp reconstruction, full ramp reconstruction, and the addition of signals and left turning lanes at the ramp terminals. Route 23 goes under I-70 at this interchange.
- Route Y-VV Interchange: The Improved Minimum Build will replace the existing bridge with wider shoulders, providing vertical and horizontal clearance improvements, and tying the ramp gores into the preferred mainline hybrid alternative with full ramp reconstruction.
- Route 127 Interchange: The Improved Minimum Build will eliminate the slip ramps and includes a roundabout at the southern ramp terminal, which has been shifted east to avoid impacts to businesses. At the northern ramp terminal, the existing bridge will be replaced with wider shoulders, providing vertical and horizontal clearance improvements, and tying the ramp gores into the preferred mainline hybrid alternative with full ramp reconstruction.
- Route YY Interchange: The Improved Minimum Build will tie the ramp gores into the preferred mainline hybrid alternative with full ramp reconstruction, removal of the existing slip ramps with a new standard tight diamond configuration, and realignment of the south outer road. The existing bridge will remain in place.
- Route 65 Interchange: The Minimum Build will tie the ramp gores into the preferred mainline hybrid alternative with partial ramp reconstruction. The existing bridge will remain in place.

- Route K-EE Interchange: The Minimum Build will tie the ramp gores into the preferred mainline hybrid alternative and partial ramp reconstruction. The existing bridge will remain in place.
- Route J Interchange: The Improved Minimum Build will replace the existing bridge with wider shoulders, providing vertical and horizontal clearance improvements, and tying in the ramp gores into the preferred mainline hybrid alternative with full ramp reconstruction.
- Route K Interchange: The Minimum Build will replace the existing bridge, providing vertical and horizontal clearance improvements, and tying the ramp gores into the preferred mainline hybrid alternative with partial ramp reconstruction.
- Route 135-41 Interchange: The Improved Minimum Build will replace the existing bridge with wider shoulders, providing vertical and horizontal clearance improvements, and tying the ramp gores into the preferred mainline hybrid alternative with full ramp reconstruction.

The Preferred Alternative identified in the current re-evaluation of SIU 2 consists of a hybrid approach of widen I-70 to the inside and widen to the outside of existing lanes, with all interchange improvements occurring at locations of inside widening. A detailed exhibit of the Preferred Alternative is provided in **Appendix D**.

The Preferred Alternative for this SIU 2 re-evaluation differs from the Selected Alternative from the 2006 Second Tier EA for SIU 2. The Preferred Alternative, as described above, would result in substantially fewer impacts and less cost compared to the 2006 Selected Alternative. The Preferred Alternative for this SIU 2 re-evaluation would not likely include improvements, relocations, or additional frontage roads adjacent to I-70. For this analysis, continuous frontage roads were not considered. There are locations along SIU 2 where frontage roads have gaps currently; however, these sections will remain with gaps in the Preferred Alternative and may be covered in an additional project, if necessary.

Revisions to the configuration of the Preferred Alternative identified in this re-evaluation document may occur during project delivery. Any modifications to the Preferred Alternative, and their related impacts, would need to be assessed for consistency with the findings of this re-evaluation document. Assuming that any modifications are consistent with the findings of this re-evaluation document, this re-evaluation document will remain valid.

5.0 Public and Agency Coordination

MoDOT hosted a total of seven kick-off public information meetings for the Improve I-70 Program between August 28 and September 7, 2023. Approximately 600 people attended these meetings across the state, leaving approximately 200 comments both online and in-person. 197 comments were received online, and 79 comments were written from the public information meetings. The only public meeting held within the SIU 2 study area was held in-person in Concordia, MO on August 30, 2023. The next closest public meeting, just east of the SIU 2 study area, was held in Booneville, MO on September 7, 2023. The public meeting summaries are in **Appendix E**.

On September 8, 2023, notices were sent to local, state, and federal agencies describing the proposed actions and seeking comments relative to the interests of each agency. Comments were requested by October 25, 2023. The Missouri State Historic Preservation Office (SHPO) responded on October 4, 2023, that they have no comments at this time. The Missouri Federal Assistance Clearinghouse responded on September 26, 2023, that none of the agencies involved in the review had comments or recommendations at this time. The Missouri Department of Natural Resources responded on October 5, 2023, and provided information on a number of natural resources throughout the study area.

Agency coordination materials are included in **Appendix F**. The Section 106 Programmatic Agreement fully executed on December 4, 2023 for SIUs 2, 3, 5, and 6 is included in **Appendix G**.

6.0 Resource Impact Evaluation

The following form includes an analysis of changes found during this re-evaluation and the previous SIU 2 Second Tier Approved EA/FONSI for each resource. The form identifies if there is an impact to the resource (Yes/No) and whether the impact has changed or remained the same from the 2006 Second Tier approved EA/FONSI. A summary of the impact evaluation findings in **Table 6.3** at the end of this report.

Environmental Re-Evaluation/Consultation Form (NEPA)

23 CFR 771.129

Missouri Department of Transportation/Federal Highway Administration

REGION Missouri Division	STATE PROJECT NO. J4I1341E/ST0016	I-70 SIU 2, EA
DATE APPROVED	FEDERAL AID NO. 70-2(127)	

REASON FOR CONSULTATION:

FHWA and MoDOT's Engineering Policy Guide require a re-evaluation to comply with NEPA (23 Code of Federal Regulations [CFR] 771.129) and associated laws due to the amount of time since the 2006 EA/FONSI was approved.

WILL THE TIME LAPSE OR MODIFIED ALIGNMENT CHANGE THE IMPACTS TO THE FOLLOWING:

1) LAND USE

Is there an impact to this resource? YES [X] NO [ ]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [ ] Fewer Impacts [X]

Land uses along I-70 within SIU 2 primarily consist of agriculture and intermittent, low-density commercial, industrial and residential uses. Most of the commercial and residential areas are clustered near interchanges associated with small towns within the corridor. The area is rural and is predominantly characterized by large undeveloped areas with dispersed areas of light to moderate density development. Rural lands primarily include private agricultural uses associated with cattle, horse and hay operations and typically have an onsite single-family residence and related structures. Commercial development within SIU 2 adjacent to the I-70 corridor primarily involves highway commercial uses such as gas stations, truck stops, convenience stores, fast-food chain restaurants, motels and various other highway related service and retail operations. Public land uses adjacent to the I-70 corridor include conservation areas associated with water features used for recreational purposes.

<u>SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI</u>

The 2006 EA/FONSI noted comprehensive plans for Lafayette County and the City of Concordia were under development. Though there were individual parcels that would have been affected by the Selected Alternative, the overall use of the lands adjacent to the corridor was not expected to change. Approximately 1,125 acres of vacant agricultural land and 120 acres of vacant urban/suburban industrial land was determined to be impacted by development of the Selected Alternative. The project would not have created a barrier to future development.

SIU 2 Corridor – 2024 Re-Evaluation

At the time of this re-evaluation, land use is congruent with the findings of the previous evaluations. Since approval of the 2006 EA/FONSI, several formal plans or policies for local government agencies in the corridor have been developed, updated, and/or approved. These include the following: January 2006 Lafayette County Comprehensive Plan[1]; April 2013 Lafayette County Future Land Use Map[2]; May 2023 City of Concordia Comprehensive Plan[3]; and May 2019 Pioneer Trails Regional Planning Commission Regional Transportation Plan[4]. However, no significant developments have occurred along the corridor. Additionally, as there is minimal right of way acquisition required due to minimal build strategies in the Preferred Alternative, fewer individual parcels would be affected. Refer to Section 3 – Right-of-Way Acquisition and Displacements for more information.

Applicable Commitment(s): None

2) PRIME AND UNIQUE FARMLAND

Is there an impact to this resource? YES [X] NO [ ]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [ ] Fewer Impacts [X]

Agriculture is the primary land use within SIU 2. The utilization of existing farmland for the proposed improvements would convert agricultural land to non-agricultural purposes, resulting in a loss of prime or unique farmland and a reduction in agricultural production and income. Prime farmland is defined as land best suited to producing food, feed, forage and fiber and oilseed crops and is available for these uses. Unique farmland is land other than prime farmland that is used for the production of specific high value food and fiber crops.

Prime farmland impacts were analyzed by the Natural Resources Conservation Service (NRCS), where applicable, pursuant to the Farmland Protection Policy Act of 1981 (FPPA). Requests for an evaluation were submitted to the NRCS on the Farmland Conversion Impact Rating, Form AD-1006. According to the FPPA, sites receiving low Farmland Conversion Impact Rating scores are least suitable for protection. Sites that receive a total score of 160 or less are given a minimal level of consideration for protection and no additional sites need to be evaluated.

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

Most of the land acquisition required for the 2006 EA/FONSI Selected Alternative would have involved agricultural land. Cultivated agricultural land in 1997 made up approximately 55 percent or approximately 690,387 acres of the total land area (1,255,250 acres) within the three counties in SIU 2 (USDA, 1999) and approximately 119,430 acres, 10.5 percent, are considered prime farmland. Other forms of soil conservation management included, Conservation Reserve Program (CRP) and Wetlands Reserve Program (WRP), which made up about one percent of the total land area of the three counties in 1997.

Real estate acquisition required for the 2006 EA/FONSI Selected Alternative would impact approximately 1,125 acres of agricultural land, including approximately 490 acres that are considered prime farmland. Additionally, approximately 28 acres of CRP lands and eight acres of WRP lands would be impacted.

The farmland conversion impact ratings for the Selected Alternative were below the significance criteria of 160 points for all three counties of the project area and the prime farmland that would be affected would amount to approximately four-tenths of one percent (0.4 percent) of the prime farmland in the three counties. None of the three counties reported a Farmland Conversion Impact Rating of higher than 160.

SIU 2 Corridor – 2024 Re-Evaluation

During this re-evaluation, the selection of the Preferred Alternative to predominantly widen I-70 to the inside rather than outside has allowed the project to reduce impacts. As a result, minimal right of way would be acquired. As proposed right of way would only be required within Saline County, NRCS returned classifications according to Saline County. Approximately 1,146,703 acres within Saline County are considered farmland according to NRCS. The Preferred Alternative would directly

[1] Lafayette County, Missouri Comprehensive Development Plan Update 2003-2020
[2] Lafayette County, Future Land Use Map, April 2013
[3] https://files.frontdeskgworks.com/city/1629/media/billno2024-02.pdf
[4] https://www.trailsrpc.org/wp-content/uploads/RTP-2019_Approved.pdf

convert 3.54 acres of farmland of statewide/local importance, or 0.0003 percent of the county's total agricultural land. The project would not impact any prime farmland. The Farmland Conversion Impacting Rating was determined to be below 160, therefore no additional alternatives require further evaluation. Refer to the completed Form AD-1006 in **Appendix H**. Therefore, the Preferred Alternative is a reduced impact from the 2006 EA/FONSI.

Applicable Commitment(s): None

3) RIGHT-OF-WAY ACQUISITION AND DISPLACEMENTS

Is there an impact to this resource? YES [X] NO [ ]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [ ] Fewer Impacts [X]

The acquisition of real property is one of the most important issues to landowners, residents, business owners and other property owners directly impacted by implementation of an improvement project. Standards have been developed to ensure adequate consideration and equitable compensation for those impacted. Any real property acquired as part of the I-70 improvements would be subject to the provisions of Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended (42 U.S.C. 4601). The Uniform Act and Missouri state laws require that just compensation be paid to the owner(s) of private property taken for public use. The Uniform Act would be carried out without discrimination and in compliance with Title VI (the Civil Rights Act of 1964), the President's Executive Order on Environmental Justice, and the Americans with Disabilities Act. An appraisal of fair market value will be the basis for determining just compensation to be offered to the owner for property to be acquired.

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

Total right of way acquisition of the Selected Alternative in the 2006 EA/FONSI was estimated at approximately 1,800 acres.

The 2006 EA/FONSI identified the displacement of residences, commercial and industrial businesses, institutional and governmental operations, and agricultural land due to right of way acquisition. Potential impacts from the Selected Alternative were summarized by the estimated maximum number of displacements, by land use type, that would be expected to occur within SIU 2, as follows:

- 20 rural residential displacements.
- 13 urban/suburban residential displacements.
- 21 commercial/industrial displacements.
- 1,125 acres of vacant agricultural land.
- 120 acres of vacant urban/suburban industrial land.

Of the 33 residences that would be displaced, five were mobile homes. The majority of these displacements occurred around interchanges where residential density is higher than the rural areas along mainline I-70.

SIU 2 Corridor – 2024 Re-Evaluation

During this re-evaluation, the selection of the Preferred Alternative to predominantly widen I-70 to the inside rather than outside has allowed the project to reduce impacts. As a result, no residential displacements would occur and minimal right of way would be acquired. The re-evaluation identified 3.54 acres of right of way impacts along the entire SIU 2 corridor, amounting to four partial parcel acquisitions. New right of way for the Preferred Alternative will be required exclusively at interchange locations. The two areas of acquisition include agricultural land (wooded/vacant/row crop) approximately 2.39 acres south of I-70, just east of the Route 127 interchange, and approximately 1.15 acres south of I-70 at the interchange with Route YY, The Preferred Alternative presented in this re-evaluation would reduce the anticipated right of way impacts by nearly 1,800 acres, which is a reduced impact from the 2006 EA/FONSI.

Applicable Commitment(s):

8. 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.

32. During the final design process, MoDOT will consider options to minimize new right of way acquisition.

4a) COMMUNITY IMPACTS—ECONOMIC GROWTH AND DEVELOPMENT

Is there an impact to this resource? YES [X] NO [ ]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [ ] Fewer Impacts [X]

The majority of the SIU 2 study area is characterized by large undeveloped areas with dispersed areas of light to moderate development, with higher concentrations of development near some interchanges. Developed areas are primarily associated with the incorporated cities located away from I-70 in the downtown areas or along north-south routes that intersect with I-70. Businesses adjacent to I-70 along the SIU 2 corridor are largely dependent on motorists using I-70 - tourists, truck drivers, and local residents – who utilize commercial uses such as gas stations, truck shops, convenience stores, fast-food restaurants, motels, and other highway related service and retail operations. Development in the area between the 2006 EA/FONSI and this 2024 re-evaluation has generally stayed the same. No major employment generators are located in the SIU 2 study area.

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

The 2006 EA/FONSI identified the following economic and development impacts of the Selected Alternative:

- Business and Economic Disruption During Construction: Short-term impacts during this time would be in the form of lost revenues to businesses that are displaced or suffer a reduction in sales during construction or access disruption. In the long-term, the Selected Alternative would provide a positive benefit to business and the overall economic and fiscal environment of SIU 2.
- Loss of Businesses: Of the 21 business replacements, it was expected most businesses would be able to relocate due to the prevalence of undeveloped land within the SIU 2 study area and because the I-70 improvements would provide enhanced opportunities for access to certain areas that would benefit existing, relocated, or future businesses. Additionally, none of the businesses that would be displaced are major employers.
- Economic Development Opportunities: The infusion of construction money would have economic benefits that support growth directly and indirectly. Improvements within SIU 2, particularly at the interchanges, present the opportunity for future economic development and growth along I-70.
- Employment: The loss of some local jobs could occur if displaced businesses or other businesses close. Construction expenditures would be directly tied to purchasing and employment. Direct job growth over 20+ years is expected to be substantial and would likely generate additional secondary growth employment within the region.
- Commercial and Industrial Development: Positive effects would include direct economic benefits from construction costs. Benefits would include the creation of new and large land development opportunities at interchange locations with improved levels of access to and from I-70.
- Property Values and Taxes, Sales Taxes, and Fiscal Impacts: The low number of residences and businesses to be displaced as a result of the Selected Alternative over the length of the SIU 2 corridor is not anticipated to substantially impact government services relative to the overall tax base of the three-county area. It was anticipated that any tax-based losses would be phased over time, replacement housing would be constructed back and that most businesses would relocate within proximity of the SIU 2 corridor.

SIU 2 Corridor – 2024 Re-Evaluation

During this re-evaluation, the selection of the Preferred Alternative to predominantly widen I-70 to the inside rather than outside has allowed the project to reduce the number of required displacements. As a result, no business displacements would occur that result in job losses and minimal right of way would be acquired, which is a reduced impact from the 2006 EA/FONSI. Therefore, tax implications from acquisition would also be reduced and are expected to be minimal. The positive impacts of the 2006 Selected Alternative would still be realized, including economic benefits of construction and new development opportunities.

Applicable Commitment(s): None

4b) COMMUNITY IMPACTS—ENVIRONMENTAL JUSTICE

Is there an impact to this resource? YES [ ] NO [X]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [X] Fewer Impacts [ ]

Executive Order (EO) 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, mandates some federal-executive agencies to consider environmental justice as part of the NEPA analysis by identifying and addressing disproportionately high and adverse human health or environmental effects on minority and low-income populations.

EO 14096 – "Revitalizing Our Nation's Commitment to Environmental Justice for All" was enacted on April 21, 2023. EO 14096 on environmental justice does not rescind EO 12898, which has been in effect since February 11, 1994, and is currently implemented through DOT Order 5610.2C. This implementation will continue until further guidance is provided regarding the implementation of the new EO 14096 on environmental justice.

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

The 2006 EA/FONSI determined that the minority population in the SIU 2 study area was lower than that of Cooper, Saline, or Lafayette Counties and the State of Missouri.

The 2006 EA/FONSI determined the median household income and per capita income for the three counties are generally lower than those for the State and the U.S., except for the median household income in Lafayette County, which is higher than that of the State of Missouri. The percentage of people living below the poverty level is lower in Cooper (10.7%) and Lafayette (8.8%) Counties compared to Missouri (11.7%) and the U.S. (12.4%). In contrast, Saline County (13.2%) has a higher percentage of its population living below poverty level compared to the State and the U.S.

None of the 33 residential displacements or 21 commercial displacements appeared to be in a concentrated area of minorities or low-income populations. The 2006 EA/FONSI determined that the Selected Alternative would not have disproportionate adverse impacts on minority and/or low-income populations as defined by EO 12898 and FHWA Order 6640.23.

SIU 2 Corridor – 2024 Re-Evaluation

For this re-evaluation, US Census Bureau 2022 American Community Survey (ACS) 5-year estimates were reviewed in May 2024 for all census tracts (CT) within the SIU 2 corridor. Approximately 7 percent of individuals living in the study area are minorities. This is lower than in Missouri (22 percent), Lafayette County (9 percent), Saline County (22 percent), and Cooper County (12 percent). There are two census tracts within the study area with a higher percentage minority population than the study area overall, CT 901 (8 percent) and CT 904.01 (13 percent) in Lafayette County.

Approximately 9 percent of the individuals living in the study area are low-income. This is lower than in Missouri (13 percent), Saline County (13 percent), and Cooper County (13 percent), and equal to Lafayette County (9 percent). There are four CTs within the study area with a higher percentage low-income population than the study area overall, CT 901 (13 percent) and CT 905 (12 percent) in Lafayette County, CT 907 (12 percent) in Saline County, and CT 9505 (11 percent) in Cooper County.

Less than 1 percent (0.3 percent) of individuals living in the study area have limited English proficiency (LEP). This is lower than in Missouri (1.1 percent), Saline County (2.8 percent), and Cooper County (0.5 percent). There are two CTs within the study area with a higher percentage LEP population than the study area overall, CT 901 (1.0 percent) in Lafayette County and CT 9505 (0.9 percent) in Cooper County.

This re-evaluation Preferred Alternative would require no residential acquisitions, which is less than that of the 2006 EA/FONSI. No business relocations would be required that could burden minority ownership as compared to non-minority owned businesses. No minority or low-income populations would be adversely or disproportionately affected by the proposed project. Therefore, in accordance with EO 12898 and FHWA Order 6640.23, no further environmental justice analysis is required. This is consistent with the findings of the 2006 EA/FONSI.

Applicable Commitment(s): None

4c) COMMUNITY IMPACTS—COMMUNITY COHESION

Is there an impact to this resource? YES [ ] NO [X]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [X] Fewer Impacts [ ]

Due to the rural nature of the corridor, community facilities are generally located outside of the SIU 2 study area.

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

The 2006 EA/FONSI anticipated in the near term, temporary disruptions to neighborhood cohesion due to construction. However, the 2006 EA/FONSI did not anticipate that the Selected Alternative would considerably alter existing neighborhoods in the long-term. New frontage roads and crossroad alignments would divide some small groups of homes; however, no neighborhoods or communities would be severed by the I-70 improvements. Therefore, there would be no impact on community cohesion.

SIU 2 Corridor – 2024 Re-Evaluation

The re-evaluation Preferred Alternative would not require the relocation of, or disrupt access to, any community facilities. No residential displacements or changes to frontage roads would occur. Because the proposed project would not affect the use of community facilities, and would not physically divide or disrupt neighborhoods, there would be no impact to community cohesion. This is consistent with the findings of the 2006 EA/FONSI.

Applicable Commitment(s): None

5) WETLANDS AND WATERS OF THE U.S.

Is there an impact to this resource? YES [X] NO [ ]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [ ] Fewer Impacts [X]

The U.S. Army Corps of Engineers (USACE) is the primary regulatory agency for wetlands, in accordance with the Clean Water Act (CWA). Section 404 of the Clean Water Act (CWA) regulates discharges of fill or dredge material into "Waters of the United States," which includes jurisdictional wetlands and other special aquatic sites. In order to comply with the CWA, it is necessary to locate and identify potential wetland impacts along the project corridor. The Kansas City District of the USACE maintains jurisdiction over Waters of the U.S. in the region of Missouri in which SIU 2 is located.

Public online databases and field delineations were used to identify wetlands and streams for both evaluations. There are three major water courses within SIU 2 – Davis Creek, Blackwater River, and the Lamine River, as well as multiple non-relatively permanent waters (RPW) intermittent and ephemeral streams. No traditional navigable waters (TNWs) cross the SIU 2 study area.

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

Streams

Evaluations of 118 stream crossings were conducted along the SIU 2 corridor. Five streams were identified as perennial (Davis Creek – two crossings, Lamine River, Blackwater River, Dry Creek and Chouteau Creek) and the remaining 113 streams were evaluated as intermittent. The majority of streams in SIU 2 have been altered to some extent by surrounding land use practices and by the construction of the original I-70. The degree of alteration ranges from the channelization and straightening of Davis Creek near the western crossing to culverted crossings of small intermittent streams.

The total potential linear impact to streams along SIU 2 from the 2006 EA/FONSI Selected Alternative is 41,560 linear feet.

Wetlands

Forty potential wetlands were evaluated during the field investigations. Twenty-two of the 40 were determined to be potentially jurisdictional. Ten of these were classified as forested wetlands and another seven were classified as emergent. Four wetlands were classified as a complex of forested and emergent wetlands and one wetland was classified as a mixture of scrub-shrub and emergent.

A total of 26.9 acres of wetlands would be potentially impacted by construction of the 2006 EA/FONSI Selected Alternative. The impacts consisted of the following:

- 8.2 acres, Emergent Wetlands (i.e., PEM)
- 18.3 acres, Forested Wetlands (i.e., PFO)

- 0.4 acre, Scrub-Shrub Wetland (i.e., PSS)

Wetland Reserve Program

Two WRP sites were located adjacent to Davis Creek southwest of the I-70/Route 127 interchange at Sweet Springs. A portion of this WRP site is within the wetland characterized by W129 in the SIU 2 2006 I-70 Wetland Summary Technical Report. The other WRP property is located south of the mainline of I-70 and adjacent to Chouteau Creek. The site is associated with Wetlands W109 and W110 in the same report.

The 2006 EA/FONSI Selected Alternative impacted 8.0 acres of WRP land.

Ponds

Fifty-two pond sites were evaluated during the field investigations, 11 of which were determined to be potentially jurisdictional. The majority of these ponds were small (<2 acre) farm ponds located in pastures that served as water sources for cattle or as sewage lagoons for residences or small businesses.

The 2006 EA/FONSI Selected Alternative impacted 9.9 acres of ponds.

SIU 2 Corridor – 2024 Re-Evaluation

Wetland and stream delineations of the re-evaluation of the SIU 2 study area occurred between September 25 and December 21, 2023. Landowners within the study area were notified of the proposed project and requested property access. No delineations were performed on properties that denied access or did not provide a response. The field team was unable to access 333 of the 626 parcels (53 percent) along the corridor.

Any impacts within the limits of construction (LOC) for the project were considered a permanent impact. Any impacts between the LOC and the right of way for the project was considered a temporary impact. Any staging areas incorporated into the project during final design will be considered temporary impact areas.

Streams

Evaluations of 68 RPWs and 148 non-RPWs were conducted within the SIU 2 corridor study area. Of the RPW features, 64 were evaluated as intermittent and the remaining 4 were evaluated as perennial. Of the 148 non-RPW features, 126 were evaluated as ephemeral and the remaining 22 were evaluated as intermittent.

The potential project-related impacts to streams due to the Preferred Alternative total 3,771 LF and consist of the following:

- 1,990 LF of RPW Open Channel impacts
- 1,781 LF of Non-RPW Open Channel impacts

Wetlands

Thirty-five wetlands were evaluated during the field investigations. Twenty of the 35 were determined to be potentially jurisdictional. Seven of the potentially jurisdictional wetlands were classified as emergent (PEM), 10 as forested (PFO), and three were classified as scrub-shrub (PSS).

The potential project-related impacts to potentially jurisdictional wetlands due to the Preferred Alternative total 1.2 acres and consist of the following:

- 0.4 acres of impact to jurisdictional PEM wetlands
- 0.2 acres of impact to jurisdictional PFO wetlands
- 0.6 acres of impact to jurisdictional PSS wetlands

Wetland Reserve Program

Four WRP sites are located adjacent to Davis Creek, two northwest and two southwest of the I-70/Route 127 interchange at Sweet Springs. The northwest sites are associated with the wetlands characterized as W15 and W16 in the 2024 I-70 SIU 2 Waters of the U.S. (WOUS) Delineation Report. The WRP sites located southwest of the interchange are associated with W19, W20, W21, and W22 in the same report.

Further east along the corridor and east of the I-70/Route M interchange adjacent to Chouteau Creek includes an additional WRP site split across I-70. The northern half of the WRP site is associated with the wetlands characterized as W30, W31, and W33 in the 2024 I-70 SIU 2 WOUS Delineation Report. The southern half of the WRP site is associated with W32 in the same report.

The Preferred Alternative will not impact any WRP sites.

Ponds

Ten open water pond sites were evaluated during the field investigations, two of which were determined to be potentially jurisdictional. The Preferred Alternative will not impact any OW ponds.

Summary

Wetland impacts were reduced by approximately 26 acres from the previous study. The total stream and pond impacts were also reduced from the previous study, approximately 37,789 LF and 10 acres, respectively. The 2006 EA/FONSI only reported impacts to potentially jurisdictional features, whereas this re-evaluation reports impacts to all features, regardless of determination, as a comprehensive and conservative approach. Following concurrence with the USACE on jurisdictional determinations of water features, it is expected that the total impact to features will likely be reduced even further for the Preferred Alternative when compared to the 2006 EA/FONSI.

The 2024 I-70 SIU 2 WOUS Delineation report can be found in **Appendix I**. These findings, based on field observations and recent guidance from USACE, are preliminary Jurisdictional Opinions and are subject to a final determination by USACE.

Applicable Commitment(s):

10. MoDOT commits to obtaining the required permits and certifications from USACE and MDNR prior to construction and project activities.

16. If Waters of the US are impacted, MoDOT will mitigate stream and/or wetland impacts in accordance with most current regulations and guidance.

6) FLOODPLAINS

Is there an impact to this resource? YES [X] NO [ ]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [ ] Fewer Impacts [X]

Floodplains store water, help to remove sediments and provide erosion control as well as serving important ecosystem functions (nutrient export, wildlife habitat and movement corridors). The base floodplain identified by Federal Highway Administration and Federal Emergency Management Agency (FEMA) guidelines is the area of 100-year flood hazard within a county or community. The regulatory floodplain is a channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood discharge can be conveyed without increasing the base flood elevation more than a specified amount.

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

The majority of the floodplain crossings within the SIU 2 study area are associated with Davis Creek and its tributaries. Other key floodplains include those associated with the Lamine River, Choteau Creek, Martin Branch, Blackwater River, Long Branch, Coppers Branch, Harpers Branch and Mulkey Creek. The Blackwater and Lamine floodplains drain much of the eastern half of SIU 2. The Davis Creek floodplain drains much of the western half of SIU 2.

The Selected Alternative in the 2006 EA/FONSI impacted approximately 98 acres of floodplains at more than 30 crossings of the 100-year floodplain by the mainline, frontage roads and interchange improvements, which consisted of the following:

- 27.7 acres, unnamed tributary (UNT) to Davis Creek
- 13.7 acres, Davis Creek
- 2.0 acres, UNT to Mulkey Creek
- 0.6 acre, Mulkey Creek
- 1.8 acres, Harpers Branch
- 2.3 acres, Coppers Creek
- 4.0 acres, Long Branch
- 28.7 acres, Blackwater River
- 0.8 acre, Dry Creek

- 3.4 acres, Martin Branch
- 6.3 acres, Chouteau Creek
- 6.7 acres, Lamine River

Based on the Selected Alternative, impacts on wildlife, floodwater storage and adjacent property would be minimal. Furthermore, it was determined unlikely that the Selected Alternative would encourage incompatible floodplain development.

SIU 2 Corridor – 2024 Re-Evaluation

Consistent with the 2006 EA/FONSI, no additional floodplains were identified, no regulatory floodways were identified, and the Davis Creek floodplains drain the majority of the western half of the SIU 2 study area while floodplains associated with the Blackwater and Lamine Rivers drain the majority of the eastern half of the SIU 2 study area.

The potential impacts to the 100-year floodplain from the Preferred Alternative in this re-evaluation are approximately 36 acres at 37 crossings of the 100-year floodplain by the mainline and interchange improvements, representing a total decrease of approximately 62 acres of impact when compared to the 2006 EA/FONSI. It is possible that these impacts will be reduced during more detailed design. Total floodplain impacts are itemized below.

- 6.46 acres, unnamed tributary (UNT) to Davis Creek
- 3.38 acres, Davis Creek
- 0.55 acre, UNT to Mulkey Creek
- 0.15 acre, Mulkey Creek
- 0.30 acre, UNT to Harpers Branch
- 0.16 acre, Harpers Branch
- 0.41 acre, Coppers Creek
- 0.31 acre, UNT to Long Branch
- 0.18 acre, Long Branch
- 1.81 acres, UNT to Blackwater River
- 1.89 acres, Blackwater River
- 0.002 acre, Dry Creek
- 4.50 acres, UNT to Martin Branch
- 7.94 acres, Chouteau Creek
- 0.83 acre, UNT to Lamine River
- 7.13 acres, Lamine River

Crossings would be designed to be consistent with the state emergency management agency's floodplain management goals and objectives. Additional fill and structures would be designed so as not to increase flood elevations above allowable levels and to avoid interruption to public transportation due to flood damage to the roadway or structures. Similar to the 2006 EA/FONSI, the proposed improvements are not expected to have significant impacts to floodplains along the corridor. Refer to the floodplains technical memorandum in **Appendix J**.

Applicable Commitment(s):

19. MoDOT will avoid or maintain modifications to the functions of the natural floodplain environment as closely as practicable in its natural state.

MoDOT will comply with floodplain regulations and demonstrate minimal impacts to the floodplains with the project limits during the floodplain analysis and when obtaining no-rise certifications. MoDOT will ensure sediment and erosion control best management practices are implemented during construction and disturbed areas seeded following construction.

20. MoDOT will assist the contractor in obtaining floodplain development permits from SEMA prior to FHWA authorization for construction.

7) AIR QUALITY

Is there an impact to this resource? YES [ ] NO [X]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [X] Fewer Impacts [ ]

The Clean Air Act was established to protect public safety, health and welfare from the effects of a variety of air pollutants. National Ambient Air Quality Standards (NAAQS) have been established for sulfur dioxide, particulate matter, carbon monoxide, ozone, nitrogen dioxide and lead.

Missouri has adopted the federal NAAQS and added hydrogen sulfide and sulfuric acid emission standards. In order to monitor the attainment of the NAAQS, the United States Environmental Protection Agency (EPA) has designated Air Quality Control Regions (AQCR) across the United States. The AQCRs for SIU 2 include the Southwest Missouri Intrastate AQCR (#139, Lafayette County) and the Northern Missouri Intrastate AQCR (#137, Cooper and Saline Counties).

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

None of the AQCRs in the SIU 2 study area (Lafayette, Saline, or Cooper) were classified as exceeding the NAAQS. In the 2006 EA/FONSI, the project area was in attainment for all transportation NAAQS pollutants. Therefore, the conformity procedure of the 1990 Clean Air Act Amendments did not apply.

SIU 2 Corridor – 2024 Re-Evaluation

The EPA's *Missouri Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants*, dated April 4, 2024, does not list Cooper, Saline, or Lafayette counties. As a result, all transportation conformity requirements are satisfied.

This project will likely generate minimal air quality impacts for Clean Air Act criteria pollutants but has not been linked with any special mobile source air toxic (MSAT) concerns. As such, this project will not cause changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause a meaningful increase in MSAT impacts of the project from that of the No-Build Alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly 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 over 76 percent in the total annual emissions rate for the priority MSAT from 2020 to 2060 while vehicle-miles of travel are projected to increase by 31 percent (*Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents*, Federal Highway Administration, January 18, 2023). This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

Applicable Commitment(s): None

8) NOISE

Is there an impact to this resource? YES [X] NO [ ]

Changes since 2005 Second Tier Approved EA More Impacts [X] Same [ ] Fewer Impacts [ ]

FHWA's Traffic Noise Model (TNM) was used to determine existing and proposed noise levels in the SIU 2 corridor under a no-build and a build scenario for the selected alternatives in both studies. Where potential noise impacts were identified, noise abatement was considered and implemented if found both reasonable and feasible. When noise abatement measures are being considered, every reasonable effort is made to obtain substantial noise reductions. Slightly different criteria for reasonableness were applied to each study based on MoDOT's current, FHWA approved, noise policy at the time of analysis.

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

A noise screening was prepared to determine existing and projected noise levels in the SIU 2 corridor under the no-build and build scenario for 2030. Eighty-one representative noise modeling receptors were chosen along the corridor. The receptors included eight businesses, 71 residences, one conservation area, and one campground. Under the 2006 Selected Alternative, the TNM analysis indicated noise levels exceeded noise abatement criteria (NAC) (i.e., 67 dBA) at 56 of the residences and two businesses. The conservation area and campground both were determined to exceed 72 dBA; however, these areas do not rely on quietness or solitude for its existence.

When potential noise impacts are identified, noise abatement is considered and implemented if found to be reasonable and feasible as specified by various factors. Based on the study completed, mitigation of noise impacts for the proposed project at the time of analysis did not meet all of MoDOT's definitions for reasonableness. According to FHWA and MoDOT guidance on noise abatement in 2006, feasibility and reasonableness factors included, but were not limited to:

- Noise wall must provide noise reduction of at least 5 A-weighted decibels (dBA) (benefitted
- receptors).
- Noise wall must provide attenuation for more than one receptor.
- Noise wall must be 18 feet (5.5 meters) or less in height above normal grade.
- Noise wall must not interfere with normal access to the property.
- Noise wall must not pose a traffic safety hazard.
- Noise wall must not exceed a cost of $30,000 per receptor.

Therefore, no noise mitigation measures were further considered for the 2006 Selected Alternative.

SIU 2 Corridor – 2024 Re-Evaluation

A detailed noise study was performed for the SIU 2 corridor (**Appendix K**). The study evaluated increasing capacity from a four-lane facility to a six-lane facility by modeling the Preferred Alternative in TNM. A total of 77 receptors, representative of the 162 individual land uses or dwelling units along the project area, within 110 common noise environments (CNEs) were evaluated for noise impacts. Under the 2050 build scenario for the Preferred Alternative, 65 evaluated receptors, representing 135 individual receptors, approach or exceed the FHWA NAC and were evaluated for noise abatement.

Abatement measures were evaluated for feasibility. Feasibility requirements established by MoDOT include:

- Acoustic feasibility – minimum 5 dBA insertion loss for a minimum of two first-row impacted receivers.
- Engineering feasibility – if physical/constructability constraints are too extreme (e.g. topography, access, drainage, safety, maintenance), a noise wall's height is limited to 20 feet.

Using TNM, abatement measures were also considered for appropriate groupings of receptors. Impacted receptors that were separated by long distances and not grouped in a community setting were not evaluated as they did not satisfy reasonableness criteria. According to MoDOT guidance on noise abatement, reasonableness factors include, but are not limited to:

- Viewpoints of owners and residents of the benefitted receptors will be obtained. These will usually be obtained by ballot through mailings or at a public forum.
- Noise abatement measures shall not exceed 1,300 square feet per benefitted receptor, in the case of noise walls. Where noise walls are not options, other noise abatement techniques may be considered but cannot exceed $46,000 per benefitted receptor.
- Noise abatement measures must provide a minimum reduction of 7 dBA for 100 percent of benefitted, first-row receptors.

Following these criteria, thirteen noise barrier locations were analyzed. Twelve (12) noise wall locations were found to be feasible, and none were found to be reasonable. Approximately three quarters of the evaluated walls met noise reduction criteria but exceeded the 1,300 square feet per benefitted receptor criteria. The remaining walls that did not meet feasibility or reasonableness criteria were unable to meet noise reduction criteria, likely due to a mix of factors that include variable receptor distance from noise sources and existing roadway and structures, providing some existing shielding from traffic noise.

Congruent with findings from the 2006 EA/FONSI, none of the noise barriers were deemed both feasible and reasonable. Therefore, no noise mitigation measures were further considered for the Preferred Alternative. Refer to the detailed noise study attached in **Appendix K**.

Applicable Commitment(s):

11. 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

13. To minimize impacts associated with construction, pollution control measures outlined in the Missouri Standard Specifications for Highway Construction would be used. These measures pertain to air, noise and water pollution as well as

traffic control and safety measures.

23. The updated MoDOT Noise Policy was used to address noise impacts. Following analysis, noise walls were determined neither feasible nor reasonable. Final decisions regarding the construction of noise barriers are made during the final design process. If design changes have occurred 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.

9) THREATENED AND ENDANGERED SPECIES

Is there an impact to this resource? YES [X] NO [ ]

Changes since 2005 Second Tier Approved EA More Impacts [X] Same [ ] Fewer Impacts [ ]

Rare plant and animal species are protected under federal and state laws. Active programs of recording and monitoring known populations of rare species are managed by the Missouri Department of Conservation (MDC) through the National Heritage Program and the USFWS.

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

The evaluation of threatened or endangered species impacts for the 2006 EA/FONSI included coordination with USFWS and the MDC. The following species were identified as potentially occurring in the study area for SIU 2:

- Running buffalo clover (*Trifolium stoloniferum*)
- Indiana bat (*Myotis sodalis*)
- Ghost shiner (*Notropis buchanani*)

Running buffalo clover, a federally endangered species, has not been recorded in SIU 2. However, according to the USFWS, it could occur within the project area near the disturbed floodplain habitats of the Lamine and Blackwater Rivers and Davis Creek. This species was identified along the Loutre River adjacent to I-70 in 2002. I- 70 crosses the Loutre River in Montgomery County approximately 80 miles east of the eastern terminus of SIU 2. Although a wetland delineation was conducted throughout SIU 2 and no running buffalo clover plants were identified, no surveys for threatened and endangered species were conducted as part of this project.

The Indiana bat, a federally endangered species, may be found throughout the state but had not been recorded in SIU 2. According to the MDC at the time of the 2006 EA/FONSI, there were fewer than 30 caves or mines, known to have sizable Indiana bat colonies during winter hibernation. The Indiana bats are known to inhabit Rocheport (also known as Boone) and Lewis and Clark Caves during the winter months. Both caves are located outside of SIU 2 in the Overton Bottoms area of the Missouri River and are approximately 20 miles east of SIU 2.

According to the MDC in the 2006 EA/FONSI, the ghost shiner, a state species of Conservation Concern (ranked S2), had been recorded in the Blackwater and Lamine Rivers near I-70. The MDC identified the potential for the species to occur near SIU 2. The closest known observations of the ghost shiner in the Blackwater River occurred approximately 3.5 miles downstream of the I-70 crossing of the Blackwater River. The closest known observation in the Lamine River occurred eight miles upstream from the I-70/Lamine River crossing.

It was determined that no impacts to high quality natural communities and threatened, endangered, and sensitive species would occur because of the proposed improvements; however, commitments including further coordination between MoDOT, USFWS, and the MDC on bat protocol and running buffalo clover were anticipated to be necessary as the project progresses.

SIU 2 Corridor – 2024 Re-Evaluation

USFWS and MDC National Heritage Review (NHR) species lists were referenced during the re-evaluation to determine potential effects to protected species. A field site investigation was completed September 25-29, October 10-17 and 30-31, November 1-3 and 14-19, and December 21, 2023, to identify potential suitable habitat for protected species.

According to the USFWS Information for Planning and Consultation (IPaC) tool, the following federally and/or state-listed species were identified as potentially occurring in the SIU 2 study area:

- Gray bat (*Myotis grisescens*): Federally and State Endangered
- Indiana bat (*Myotis sodalis*): Federally and State Endangered
- Northern long-eared bat (*Myotis septentrionalis*): Federally Threatened and State Endangered

- Tricolored bat (*Perimyotis subflavus*): Federally and State Proposed Endangered
- Monarch butterfly (*Danaus plexippus*): Federal Candidate Species

According to USFWS, no critical habitats are listed within the SIU 2 study area. Per guidance received from USFWS on January 5, 2021, consultation for monarchs is not required unless MoDOT is receiving funding from the USFWS. Since that is not the case with this project, MoDOT will not make an effects determination for this species.

According to MDC's review of cave/karst features within a 3-mile buffer of the study area for occurrences of state and federally listed threatened and endangered species, one cave located within the I-70 right of way has been documented to have bat activity. The Harriman Hill cave was also observed during the field investigation, which is documented and recorded to be suitable for the above referenced bat species.

In addition to the federally listed species on the IPaC list, field investigations by MoDOT biologists located mussel beds in the Blackwater River under the I-70 bridge. These mussels are not a listed species; however, relocation mitigation efforts are detailed in the commitments.

Bats

Acoustic surveys for bat presence were conducted from July 17 through August 7, 2023, at 91 sites within the study area. All ten species used in the software analysis were identified. The acoustic auto-ID survey indicated significant maximum likelihood estimator (MLE) values for Indiana bats at two sites and northern long-eared bats at one site. Visual vetting confirmed Indiana bat presence at both sites, and long-eared bats at a single site. Additionally, calls consistent with tricolored bats were confirmed at 58 sites and gray bats at 41 sites.

Five-mile buffers were established around both sites where Indiana bat presence was detected and confirmed, and a 3-mile buffer was established around the single site where northern long-eared bat presence was confirmed. Buffers occupy 25 miles of the Project area. Using the 2019 National Land Cover Database, all forested land cover types within the study area boundaries were identified and used to estimate the amount of bat habitat potentially affected by the project. In total 103.82 acres were identified with suitable habitat and included 11 sites with moderate Indiana bat and northern long-eared bat roosting potential and five sites with high roosting potential. The project corridor has a total of 81.9 acres of forested areas (potential suitable bat habitat). Proposed improvement impacts to suitable bat habitat to be determined once design refinements to the preferred alternative are complete. With removal of this suitable habitat during the inactive season (October 16-March 31), it is expected that a determination of "may affect, but not likely to adversely affect" (NLAA) will be appropriate for the gray bat, Indiana bat, and northern long-eared bat. Pending listing status of tricolored bat, "not likely to jeopardize" (NLJ) or NLAA is expected. MoDOT will conduct consultation with USFWS as tree clearing impacts are known.

Migratory Birds

Migratory bird use of structures (i.e., bridges and culverts) was recorded during the field investigation. Barn swallows (*Hirundo rustica*), cliff swallows (*Petrochelidon pyrrhonota*), and eastern phoebes (*Sayornis phoebe*) commonly use man-made structures for nesting. The field investigation was not conducted during the breeding season for migratory bird species; therefore, structures could only be assessed for positive or negative use based on whether nests or remnants of nests were observed on the structure. Twenty-three of the fifty-two bridge structures (44 percent) and twenty-nine of the thirty-five culverts (83 percent) had positive use by migratory birds.

Bald Eagles

Large canopy trees were observed throughout the study area that would be suitable for bald eagle nesting, and multiple perennial streams and rivers would provide suitable foraging habitat. Most of the occurrences of bald eagles reported by MDC are east of the study area, along the Missouri River. No occurrences are within the study area. No bald eagles or bald eagle nests were observed during the field investigation.

Summary

While the impact area of the project has decreased since the 2006 EA/FONSI, further investigations and updates in species listings and range has resulted in determinations of 'may affect, not likely to adversely affect' for three listed species; whereas, the 2006 EA/FONSI determined no impact. Refer to the threatened and endangered species technical report and bat acoustic survey, located in **Appendix L**.

Applicable Commitment(s):

14. MoDOT will comply with all requirements of the FHWA's Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana Bat and Northern Long-Eared Bat (PBO) to minimize the potential for adverse effects to the species.

MoDOT will periodically coordinate with the MDC and USFWS during the project development process to identify any new locations of threatened and endangered species activity, conduct any further assessments that are needed, and evaluate

potential adverse effects. Final effects determinations and consultation with the MDC and USFWS will be required for any future projects within the study area.

29. In order to prevent harm to nesting migratory birds, MoDOT will include a Job Special Provision (JSP) in project contract(s) to help ensure that bridges are kept free of active nests before and during construction.

31. MoDOT will continue to coordinate with MDC and USFWS prior to construction on potential impacts to mussels in Blackwater River.

10) HISTORIC AND ARCHAEOLOGICAL SITES

Is there an impact to this resource? YES [X] NO [ ]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [ ] Fewer Impacts [X]

The proposed action is considered a federal undertaking and is subject to compliance with federal laws and regulations, including Section 106 of the National Historic Preservation Act (NHPA). Resources consist of archaeological sites, architectural buildings and structures, historic districts, bridges, and cultural landscapes.

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

The Center for Archaeological Research (CAR) at Southwest Missouri State University conducted the historic, archaeological, and architectural property investigation for the SIU 2 study area. The investigation included a search of Archaeological Survey of Missouri and State Historic Preservation Office (SHPO), Missouri Department of Natural Resources (MDNR) files for information on known sites and their significance, as well as a physical survey of the SIU 2 corridor.

Architectural (Built Environment)

Although no architectural (i.e., built environment) sites were listed on the National Register of Historic Places (NRHP) for SIU 2 in the 2006 EA/FONSI, the CAR surveyed 90 properties that dated prior to 1945. The area of potential effects (APE) for this investigation extended 250 feet from the current right of way on the selected side for widening along the mainline and between the interchanges. Around the interchanges, the APE consisted of the farthest extent of any potential reconstruction with a 100-foot buffer outside that limit. The CAR recommended five properties and one object potentially eligible for the NRHP under SIU 2. The properties included the Marth/Fischer Barn (2LF66), Burrow House (2LF113), Hall/Simmons House (2SA191), Younger/Swift House (2SA208), and Schmitt Garage (2CP239), and the object was the Higginsville Hand Sign north of I-70 (2LF277). The SHPO reviewed and concurred these properties and the object were eligible for listing on the NRHP. The remaining 84 properties were recommended by CAR as not eligible for the NRHP. Of the five properties, only the Marth/Fischer Barn (2LF66) property was determined to be adversely affected by the Selected Alternative and required a Section 4(f) Evaluation. SHPO provided concurrence on the 'Adverse Effect' determination on June 28, 2004, noting the project would have an adverse effect on the barn but 'No Adverse Effect' on the remaining buildings at this location. Per the Selected Alternative, the barn on the property would be directly impacted by the reconstruction of the existing frontage road. Therefore, the Selected Alternative was determined to affect one potential historic resource eligible for listing on the NRHP and mitigation for this adverse effect would be necessary.

Archaeological

The CAR also completed a Phase I archaeological survey report for the Selected Alternative. The APE that was surveyed consisted of a 164-foot-wide area adjacent to the existing right of way (or outer road right of way) where lane expansion was proposed to occur and for construction of the new outer road. At interchanges, all new proposed rights of way were surveyed. The Phase I survey identified 88 archaeological sites, nine of which were previously identified. Twelve of the 88 could not be fully evaluated due to denial of property access. Of the 88 sites, CAR recommended 14 for Phase II testing – one in Lafayette County, eight in Saline County, and five in Cooper County. Sites recommended as eligible for Phase II testing included 10 prehistoric sites, three historic sites and one multi-component, pre-historic site.

Because the proposed improvements would potentially affect properties that may be included in or eligible for inclusion in the NRHP, a Programmatic Agreement (PA) was executed between the Advisory Council on Historic Preservation (ACHP), FHWA, SHPO, and MoDOT to outline assurances regarding further investigation of all 14 archeological sites prior to construction, as well as protocol for agency consultation and processing of collected materials.

SIU 2 Corridor – 2024 Re-Evaluation

Between the 2006 EA and this re-evaluation, the previous PA has been superseded by a new PA, executed December 4, 2023, that applies to SIU 2, 3, 5, and 6. The multi-SIU PA is attached in **Appendix G**.

Architectural (Built Environment)

A records review and architectural survey of the built environment was conducted for SIU 2 from November 1-3, 6-8, 2023 and February 2-4, 2024. The survey was restricted to the existing MoDOT right of way and to parcels for which landowner permission to access was granted. The APE consisted of the NEPA study area, 250 feet either side of the I-70 centerline, plus an additional 100 feet. A total of 131 built environment resources over 40 years of age were recorded, as well as 175 less than 40 years of age, 41 bridges/culverts, and two cemeteries. Of the 131 properties over 40 years of age, 126 were recommended as not eligible for the National Register. Of the five resources recommended as eligible for the NRHP, three were previously determined eligible in the 2006 EA/FONSI and include the North Higginsville Hand Sign (AR131), the Fischer Barn (AR32), and the Simmons House (AR87). The two additional resources recommended for eligibility include the South Higginsville Hand Sign (AR24.1) and the Aulville Southwestern Bell Repeater Station (AR29). However, in 2004 MoDOT and SHPO determined AR29 lacked sufficient integrity to be eligible for listing on the NRHP. In contrast to the 2006 EA/FONSI, the Burrow House, Younger/Swift House, and the Schmitt Garage were not recommended as eligible in this re-evaluation. No bridge or cemetery resources within the SIU 2 study area were identified as eligible for listing in the NRHP. A 'No Adverse Effect' finding, based on the current proposed improvements, for the resources recommended for eligibility was approved by the MoDOT Historic Preservation Office on May 22, 2024 and concurred by SHPO on June 17, 2024.

MoDOT will continue consultation with FHWA and SHPO, per Stipulation VI of the multi-SIU PA for any NRHP eligible properties identified, and to avoid or minimize any adverse effects.

Archaeological

An archaeological survey was conducted for SIU 2 from November 1 to December 21, 2023 and was approved by the MoDOT Historic Preservation Office on May 2, 2024 and concurred by SHPO on May 9, 2024. The APE was defined as the approximately 3,909-acre I-70 SIU 2 study area that encompassed all potential roadway improvements. The survey was restricted to the existing MoDOT ROW and to parcels for which landowner permission to access was granted. The survey revisited 15 of 73 previously recorded sites located within the APE. The survey also recorded five previously unidentified sites and 14 isolated finds. A summary of the survey and approval of findings from MoDOT and subsequent concurrence from SHPO, resulting in a "no historic properties affected" or "no historic properties adversely affected" determination, include:

- The five new sites and 14 isolated finds are considered to be not eligible for listing in the NRHP and no further work is recommended.
- Seven sites were considered potentially eligible for listing in the NRHP: 23LF1188, 23SA168, 23SA525, 23SA1685, 23SA1686, 23CP1456, and 23CP1457; should these sites be affected by construction additional testing is recommended in order to fully evaluate these sites for eligibility.
- One site, 23CP51, was to be considered eligible for inclusion in the NRHP by MoDOT and SHPO, contrary to the surveyors' eligibility recommendation in the survey.
- Eight sites (23LF35, 23LF142, 23LF1162, 23CP58, 23CP282, 23CP1370, 23CP1376, and 23CP1384), that extend beyond the APE should also be considered potentially eligible for listing in the NRHP: however, as the project is currently designed, the project will have no adverse effects on these sites.
- The remaining previously identified sites are located within the APE but either entirely or primarily outside of MoDOT's ROW and could not be accessed or surveyed. If these sites will be affected by the project, survey and potentially testing will need to be completed.

MoDOT will follow the provisions of the multi-SIU PA, specifically Stipulation IV, as access to properties is obtained, to ensure that properties without access are properly assessed for historic resources and will consult with FHWA and SHPO regarding the NRHP eligibility of those properties.

It was concluded that, provided the recommendations are implemented for the minimization of effects, avoidance of previously recorded sites, cemeteries, un-revisited sites, and portions of revisited sites that are partially outside the limits of construction or within an inaccessible parcel, and/or cessation of ground disturbing activities in the event of unanticipated post-Section 106 review discoveries, the project will have no adverse effect on cultural resources. The Archaeological Survey and Built Environment Report completed for this re-evaluation are attached in **Appendix M**.

Applicable Commitment(s):

17. MoDOT will comply with the newly executed Programmatic Agreement (approved 12-04-2023). Should design modifications and/or construction activities result in impacts to historic properties, MoDOT will coordinate with SHPO related to the Section 106 process.

33. Should I-70 or any part thereof be determined eligible for the NRHP at a later date, FHWA and MoDOT would enter into consultation with the State Historic Preservation Office and the Advisory Council on Historic Preservation pursuant to 36 Code of Federal Regulation 800.

11) PUBLIC LANDS AND SECTION 4(f) AND 6(f)

Is there an impact to this resource? YES [ ] NO [X]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [ ] Fewer Impacts [X]

Publicly managed parks, recreation areas and other lands are scattered throughout the SIU 2 corridor and serve as important resources for conservation or regional natural heritage and for recreational opportunities. These areas range from city parks to state fishing lakes and wildlife management areas. The major state agency managing land within the SIU 2 corridor is the MDC.

Section 4(f) of the Federal Aid Highway Act of 1968 requires the consideration of publicly owned lands and historic sites when evaluating alternatives for transportation projects. Further, recreation areas where Land and Water Conservation Fund (LWCF) Act monies have been used are protected under Section 6(f) of the Land and Water Conservation Fund Act. The following discussion identifies the potential Section 4(f) and Section 6(f) resources located within the SIU 2 corridor for both studies and clarifies whether these resources meet the underlying requirements of these regulations.

<u>SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI</u>

Section 4(f)

Based on the evaluation of public lands within SIU 2, the following resources were identified:

- Harriman Hill Access Conservation Area: 37 acres of land managed by the MDC near MM 92, providing access to the Lamine River for fishing, camping, boating and other recreational activities. The boat ramp was developed with LWCF funds.
- Maple Leaf Lake Conservation Area: 826 acres of land managed by the MDC near MMs 46 and 47 and just east of Route H, providing fishing, hunting, hiking, and other recreational activities. No special funds were utilized in the development of the area.

The 2006 EA/FONSI determined the Selected Alternative would have no direct impact to these resources.

An additional potential resource included the abandoned former Minuteman II missile site, assumed to be owned by the US Government, located in the northwest quadrant of the Route H interchange. The 2006 EA/FONSI determined the proposed mainline improvements from the Selected Alternative would not impact the fenced portion of this site, but the mainline right of way would extend across the access road.

Since the public lands associated with the Selected Alternative in the 2006 EA/FONSI were avoided, only impacts to a historic property warranted a Section 4(f) Evaluation/Finding. The Marth/Fischer Barn (2LF66) was determined to be adversely affected by the Selected Alternative. The Section 4(f) evaluation determined there was no feasible and prudent alternative to a use of the Marth/Fischer Barn (2LF66) from a Section 4(f) use.

Section 6(f)

The 2006 EA/FONSI noted 32 Section 6(f) resources in the SIU 2 corridor, based on previously collected data from the First Tier EIS for I-70 - four in Lafayette County, 21 in Saline County and seven in Cooper County. All of these resources were located beyond the area of direct impacts from right of way acquisition and construction of the Selected Alternative. Therefore, there were no impacts to Section 6(f) resources in the 2006 EA/FONSI.

<u>SIU 2 Corridor – 2024 Re-Evaluation</u>

Section 4(f)

A reasonable effort has been made to identify new Section 4(f) resources. No new resources were identified. The Preferred Alternative does not require the acquisition of publicly owned park land, including those subject to Section 4(f).

It was determined (Section 10) five architectural (built environment) properties were eligible for the NRHP within the APE, including the Fischer Barn (AR32). SHPO has been notified that concurrence with the determination of 'No Adverse Effect' finding will be used by FHWA in applying the de minimis impact criteria for historic sites in compliance with Section 4(f) (49 USC 303). Therefore, in contrast to the 2006 EA/FONSI, there is no Section 4(f) use of this property, or any others, in this re-evaluation.

No sites were definitively determined eligible for the NRHP during the archaeological survey. If the sites determined potentially eligible (discussed in Section 10 above) will be affected by construction, additional work will be completed, and an eligibility and effect determination will be made at that time subject to comment by SHPO. At that time the potential for the presence of archeological resources that have value for preservation in place will also be made and will be subject to comment by SHPO per the processes established in executed Section 106 Programmatic Agreements.

No Section 4(f) properties will be impacted.

Section 6(f)

Consistent with the 2006 EA/FONSI, there were no Section 6(f) properties within the study area. Therefore, no impacts are anticipated to Section 6(f) properties.

Applicable Commitment(s): None

12) HAZARDOUS WASTE SITES

Is there an impact to this resource? YES [X] NO [ ]

Changes since 2005 Second Tier Approved EA More Impacts [ ] Same [ ] Fewer Impacts [X]

A search of federal and state regulatory databases of known contamination sites or hazardous waste storage or waste generators was conducted, and supplemented by a windshield survey, for both studies.

SIU 2 Corridor – 2006 Second Tier Approved EA/FONSI

A total of 32[5] recorded hazardous waste sites were identified as potentially impacted by the Selected Alternative. None were NPL sites, CERCLIS sites, RCRIS TSD facilities, SHSWs or State Landfill Sites. These sites were largely comprised of service stations and convenience stores located in the project area that would be impacted during interchange construction. These locations were potentially hazardous due to the underground petroleum storage tanks (USTs) present. In addition, various auto/truck, commercial, light industrial, and former military sites are included. The potentially impacted sites, either by displacement or partial take, by the 2006 EA/FONSI Selected Alternative are listed below.

Table 6.1 Potential Hazardous Waste Sites Impacted by the 2006 EA/FONSI Selected Alternative

Site Name/Owner*	Potential for Contamination
Mainline Improvements	
Bri-Ley Sales – Utility Equipment Supplier (possible UST)	Moderate
Raney Auto Sales and Service (UST)	Moderate
Klienschmidts (unknown prior use)	Low
Micro Tool and Dye (Potential RCRA Waste)	Moderate
M&S Livestock Equipment (UST)	Moderate
Trader's Corner Used Farm Equipment (possible UST)	Moderate
Unknown Truck Service Facility (UST)	Moderate
Bill's Garage (AST and UST)	Moderate
I-70/Route H	
Former Minuteman II missile site	Low
I-70/Route 13 Interchange - Higginsville	
Pilot Travel Center (UST)	Moderate
Iron Horse (AST and possible UST)	Moderate
I-70/Route 23 Interchange - Concordia	
Travel Center (UST)	Moderate
Break Time (AST and UST)	Moderate
Texaco (AST and UST)	Moderate

[5] The 2006 Second Tier Approved EA Table IV-11 details 32 sites. The supporting narrative incorrectly noted 33 sites.

Conoco (UST)	Moderate
Mike's Auto Repair (UST)	Moderate
I-70/Route 127 Interchange	
Amoco (UST)	Moderate
Conoco (UST)	Moderate
I-70/Route YY Interchange	
Betty's Motel/Restaurant and Gas Station (AST and UST)	Moderate
Amoco (AST)	Moderate
Truck Repair (UST)	Moderate
TSI (former Kerr McGee site – AST)	Moderate
I-70/Route J Interchange	
Stuckey's (AST)	Low
Abandoned Gas Station (possible UST)	Moderate
I-70/Route 135/41 Interchange	
All Star Gas (UST)	Moderate
Mid Missouri Thermal King (AST)	Moderate
Williams Sales and Service (Possible UST)	Moderate
KOA Press (potential leakage of printing/processing chemicals)	Moderate
Conoco Gas Station (UST)	Moderate
Chase Repair (UST)	Moderate
First Amendment Video (potential UST)	Moderate
Texaco Gas Station (UST)	Moderate

The results of the evaluation concluded that prior to acquisition of the land associated with these sites and before construction would occur, additional investigations and documentation would be required to determine the presence of hazardous materials and potential site-specific mitigation measures.

The former Minuteman II missile site, located near the northwest corner of I-70 and the Route H interchange, was a unique potential site since the facility itself would not be impacted by the 2006 EA/FONSI Selected Alternative and only the gravel access road to the site. The USGS implemented a long-term monitoring program at the site; however, results at the time indicated that no contaminants were above minimum reporting levels.

SIU 2 Corridor – 2024 Re-Evaluation

An updated search and analysis of federal and state regulatory databases was conducted by Environmental Risk Information Services (ERIS) in October and November 2023 for SIU 2, to identify and evaluate sites that may potentially contain hazardous materials, petroleum products, or other sources of contamination (**Appendix N**). The ERIS database compiles documented environmental sites contained in over 100 different environmental databases including sites identified or evaluated as federal or state Superfund sites; facilities that generate, store, treat or dispose of hazardous wastes; solid waste landfills; facilities that have active, closed, or leaking aboveground storage tanks (ASTs) or underground storage tanks (USTs); sites actively undergoing cleanup; spills involving potentially hazardous materials; and other activities that might be an indicator of an environmentally hazardous condition. In addition, the Missouri Department of Natural Resources (MDNR) Environmental Site Tracking and Research Tool (ESTART) was accessed concurrently to assess information on environmental sites including superfund sites; federal facilities; hazardous waste treatment, storage, and disposal facilities; Brownfields/Voluntary Cleanup Program sites; Brownfields assessments; and petroleum and hazardous substance storage tank facilities.

Hazardous waste sites identified in the database searches were prioritized by the likelihood of potential soil and/or groundwater contamination present in the Study Area. Sites were assigned one of three priorities: "None-to-Low" (Priority 3 ranking), "Low-to-Moderate" (Priority 2 ranking), or "Moderate-to-High," (Priority 1 ranking). Over 150 different sites were identified within the ASTM E 1527-21 search radii. Fourteen sites were identified as Priority 1 ("Moderate-to-High" risk), 22 as Priority 2 ("Low-to-Moderate" risk), and the remaining sites were identified as Priority 3 ("None-to-Low" risk). **Table 6.2** is a list of all Priority 1 and 2 sites within the study limits, two (bolded in **Table 6.2**) of which potentially could be impacted by the Preferred Alternative. Priority 3 sites were not listed, since these are considered at a sufficient distance to have no impact on the Preferred Alternative. The majority of these sites include service stations with USTs that have had a documented release of petroleum products, incomplete closure records, closed prior to the implementation of the MDNR 2004 Tanks RBCA, or have activity use limitations. The site at the I-70 and Route J interchange is a historic military site. The sites are primarily located within or near the I-70 interchanges.

Table 6.2 Priority 1 & 2 Potential Hazardous Waste Sites Impacted by the Preferred Alternative

*ERIS Report and Map Key ID	Priority	Site Name/Owner	Address	Applicable Database Listing(s)
Mainline Improvements				
45	2	Jct Interprises / Mini Mart	I-70 & Hwy 13	Del Tank
47	**2**	**Cheyenne's Frontier Store**	**3435 Bryant Bottom Rd.**	**Del Tank**
83	2	I-70	Aulville, MO	UST
85	2	AT&T	South of I-70 Aulville, MO	UST, LST
I-70/Route H				
110/112	1	Minuteman II ICBM November 5 LF	Rte E 0.2 W of Rte H	AUL, HWCP
113	2	Whiteman AFB November 5 LF	Rte E 0.2 W of Rte H	LST
I-70/Route 13 Interchange - Higginsville				
44	2	Higginsville / I-70 Junction	20401 N Outer Rd	Brownfields
88/89	1	Flying J Pilot Travel Center/Pilot Travel Center #443	6675 Hwy 13	SPILLS, Del Tank
108	1	Casey's General Store #2888	6685 Hwy 13	UST, LST
121	2	Branson & Sons, Inc	Rte 2Box 230	UST, LST
I-70/Route 23 Interchange - Concordia				
27	2	Travel Centers of America/Dan's Service	I-70 & Hwy 23	Del Tank
84	1	Concordia Eagle Stop	201 N Main St.	UST, LST, Del Tank
95	2	Concordia Travel Center	102 NW 4th St.	LST, Del Tank
103	1	7th Heaven/Break Time #3022	104 Main St.	UST, LST, Delisted LST
109	2	Shop & Go #341	101 N Main	Del Tank
111	1	Casey's General Store	101 N Main	UST, LST
115	2	Casey's General Store #3489	101 N Main	Del Tank
125	2	Concordia Maint Lot	Hwy 23	UST
I-70/Route 127 Interchange				
2	1	Stuerke Standard	306 W Hwy 40	UST
7	2	Caseys General Store #2840	140 E Hwy 40	UST, Del Tank
8	1	Litton Shell Service	I-70 & Route 127	UST, LST
9	2	Break Time #3089	100 Hwy 40	UST, Del Tank
12	2	Litton Shell Service/ Poor Boys	300 W Hwy 40	Del Tank
13	1	Sweet Springs Vacant	304 W Hwy 40	UST, LST
I-70/Route YY Interchange				
17	1	Betty's Truck Stop 12620	I-70, Exit 74	LST, AST
90/91	1	Zip Stop Store	I-70, Exit 74	Delisted LST, UST
93	**2**	**Double YY Truckstop**	**I-70, Exit 74**	**Del Tank**
I-70/U.S. 65 Interchange				
No potentially hazardous waste sites would be impacted.				
I-70/Route J Interchange				
34	2	Fast n'Friendly DQ #2	11630 Hwy J Nelson	Del Tank
79	1	Fuel n Treat/Fast n Friendly	11630 Saline Hwy J	UST, LST, FINDS/FRS
118	2	Denny's 66/ Miloco Inc DBA Fat Boys	101 Main	Del Tank, UST
119	2	Cree-Mee Freeze	100 Main	UST
I-70/Route 135/41 Interchange				
72	2	Settler's Farm Stand	16850 Hwy 135	Del Tank
73	1	Next Stop Road Runners/Dogwood Truckstop	16851 Hwy 135	UST, LST, AUL
74	1	Tony's Diesel Inc	16925 Hwy 135	FINDS/FRS
I-70/Route Y Interchange				

21	2	APCO Service Station	101 E Locust St.	UST, LST
23	2	Country Convenience	100 E Locust St.	UST, LST

*The Map Key ID corelates to the ERIS report and Hazardous Materials Memo maps in the I-70 SIU 2 Hazardous Materials Memo.

Since the 2006 EA/FONSI, three Priority 1 sites considered to pose a potential impact have had status changes as follows:

Pilot Travel Center #443 – 6675 Highway 13, Higginsville, MO (Re-Evaluation ID: 88/89) - It is reported that investigative/corrective action is ongoing or incomplete at this facility. The facility is a fueling station located near the northeast corner of the interchange at I-70 & Highway 13 in Lafayette County north adjacent to the current outer road. Multiple releases have been documented at this site including one that has migrated past the oil/water separator, retention pond, and crossed under I-70 and impacted a nearby creek. The MDNR E-Start database shows two active cases associated with this facility.

Betty's Truck Stop – 12620 Route YY, Sweet Springs, MO (Re-Evaluation ID: 17) - It is reported that investigative/corrective action is ongoing or incomplete at this facility. The facility is a fueling station located near the northeast corner of the interchange at I-70 & County Road YY in Saline County adjacent to the current outer road. Free product was discovered during product piping replacement. The ERIS database report shows site characterization, monitoring, and remediation are ongoing.

Fuel n Treat / Fast n Friendly – 11630 Saline J Highway, Nelson, MO (Re-Evaluation ID: 79) - It is reported that investigative/corrective action is ongoing or incomplete at this facility. The facility was a fueling station located near the northeast corner of the interchange at I-70 & County Road J in Saline County directly north adjacent to the westbound off-ramp. Historical records show that site characterization is ongoing following a release in 2006. It was reported that the store burned down in 2019. Current aerial imagery indicates that the site has been completely redeveloped, however, this is not noted in the ERIS report or MDNR E-Start database.

Minor variations during final design could avoid the two impacted sites referenced above; however, they will likely require further investigation to evaluate existing contamination impacts to soil and/or groundwater. The selection of the Preferred Alternative to predominantly widen to the inside rather than the outside reduced the number of impacted sites. As a result, impacts to potential sites have reduced from 32 sites in the 2006 EA/FONSI to two sites in this re-evaluation. In general, sites within proximity of the Preferred Alternative limits still have the potential to affect the project, with some additional considerations, and may require further investigation.

Applicable Commitment(s):

28. Additional study and proper remediation of hazardous waste sites that will be encountered by construction will be performed as needed to minimize exposure of construction workers and the public to hazardous wastes and to ensure proper disposal of contaminated earth and other substances. This includes proper disposal of demolition debris in accordance with state law.

13) OTHER

Not applicable to this project.

14) Mitigation and Commitments

As identified in the 2009 ROD for the First Tier SEIS and the 2006 Second Tier EA/FONSI for SIU 2, MoDOT agreed to the commitments and future actions during the design and construction phases of future improvements to the SIU 2 corridor.

The agreed upon commitments and future actions are summarized below. In addition, applicability of the commitments as related to Project ST0016 are identified. Changes or updates to these commitments are shown below, where applicable. The rationale for any EA/ROD commitment's removal or revision is also provided.

Existing Commitments from the ROD Common to all SIUs:

1. MoDOT will comply with the appropriate currently adopted design criteria and design standards. (**Not Applicable to this SIU 2 EA Re-Evaluation**)

- **Revision:** MoDOT will comply with the appropriate currently adopted design criteria and design standards. However, design exceptions are possible**. (SIU 2 EA Re-Evaluation)**

2. MoDOT will incorporate suitable and reasonable Intelligent Transportation Systems elements into the Improve I-70 program. **(Applicable to this SIU 2 EA Re-Evaluation)**

3. 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. **(Applicable to this SIU 2 EA Re-Evaluation)**

4. 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, the eight-foot (2.4 meters) paved shoulder along new frontage road construction could serve as a one-way bicycle facility. **(Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** MoDOT will maintain existing local service connections and access to adjacent properties. Shoulder width will be determined in accordance with standards while balancing safety and available resources. **(SIU 2 EA Re-Evaluation)**

5. 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 crossroads. It is likely that some interchange ramps and crossroads 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. **(Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** MoDOT will develop a maintenance of traffic plan for construction phases. It is likely that some mainline, interchange ramps, and crossroads 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. **(SIU 2 EA Re-Evaluation)**
- **Revision:** If the traffic plan 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 will review these impacts within the framework of NEPA prior to implementing the plan. **(SIU 2 EA Re-Evaluation)**

6. MoDOT will coordinate with project area businesses regarding access issues, via direct communication throughout the construction period. **(Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** Communication may include a variety of tools (email updates, website, etc.).

7. 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. **(Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** MoDOT will coordinate with local public service and utility service providers during the design and construction phases of the project. **(SIU 2 EA Re-Evaluation)**

8. 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. **(Applicable to this SIU 2 EA Re-Evaluation)**

9. During construction, MoDOT's standard specifications, MDNR Solid Waste Management Program, and MoDOT's Sediment and Erosion Control Program will all be followed. **(Applicable to this SIU 2 EA Re-Evaluation)**

10. Through MoDOT's approved Pollution Prevention Plan for the National Pollutant Discharge Elimination System, 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, construction and project activities will comply with all conditions of appropriate USACE and MDNR permits and certifications. **(Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** MoDOT commits to obtaining the required permits and certifications from USACE and MDNR prior to construction and project activities. **(SIU 2 EA Re-Evaluation)**

11. 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. **(Applicable to this SIU 2 EA Re-Evaluation)**

12. 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. **(Applicable to this SIU 2 EA Re-Evaluation)**

13. 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. **(Applicable to this SIU 2 EA Re-Evaluation)**

14. 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 bat activity and for new locations of the running buffalo clover. MoDOT will conduct a field check for the running buffalo clover at least one year prior to construction activities at the Lamine River, Blackwater River, and Davis Creek. **(Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** MoDOT will comply with all requirements of the FHWA's Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana Bat and Northern Long-Eared Bat (PBO) to minimize the potential for adverse effects to the species. **(SIU 2 EA Re-Evaluation)**
- **Revision**: MoDOT will periodically coordinate with the MDC and USFWS during the project development process to identify any new locations of threatened and endangered species activity, conduct any further assessments that are needed, and evaluate potential adverse effects. Final effects determinations and consultation with the MDC and USFWS will be required for any future projects within the study area. **(SIU 2 EA Re-Evaluation)**

15. 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 MDC Grow Native program and implement the establishment of native vegetation along highway rights of way. (**Not Applicable to this SIU 2 EA Re-Evaluation**)

- **Revision:** MoDOT commits to following the EPG's roadside design guidelines. **(SIU 2 EA Re-Evaluation)**

16. MoDOT has developed a Conceptual Wetland Mitigation Plan to compensate for wetland impacts, and appropriate mitigation will be adhered to in accordance with the plan. **(Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** If Waters of the US are impacted, MoDOT will mitigate stream and/or wetland impacts in accordance with most current regulations and guidance. **(SIU 2 EA Re-Evaluation)**

17. MoDOT will continue to coordinate with the SHPO and comply with the existing executed Programmatic Agreement that complies with the National Historic Preservation Act. **(Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** MoDOT will comply with the newly executed Programmatic Agreement (approval 12-04-2023). Should design modifications and/or construction activities result in impacts to historic properties, MoDOT will coordinate with SHPO related to the Section 106 process. **(SIU 2 EA Re-Evaluation)**

18. 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. **(Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** MoDOT no longer has a tree replacement policy in place. As a result, MoDOT will not implement replacement of removed trees. **(SIU 2 EA Re-Evaluation)**

19. Where feasible, MoDOT's design process will minimize impacts to floodplains. A hydraulic design study that addresses various construction size alternatives will be completed during final design. **(Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** MoDOT will avoid or maintain modifications to the functions of the natural floodplain environment as closely as practicable in its natural state. **(SIU 2 EA Re-Evaluation)**
- **Revision:** MoDOT will comply with floodplain regulations and demonstrate minimal impacts to the floodplains with the project limits during the floodplain analysis and when obtaining no-rise certifications. **(SIU 2 EA Re-Evaluation)**
- **Revision:** MoDOT will ensure sediment and erosion control best management practices are implemented during construction and disturbed areas seeded following construction. **(SIU 2 EA Re-Evaluation)**

20. 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 SEMA. **(Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** MoDOT will assist the contractor in obtaining floodplain development permits from SEMA prior to FHWA authorization for construction. **(SIU 2 EA Re-Evaluation)**

21. MoDOT will continue to coordinate with the NRCS to determine appropriate mitigation measures for the loss of Conservation Reserve Program and Wetlands Reserve Program lands. **(Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** MoDOT has confirmed with NRCS that any WRP or CRP lands in SIU 2 will be avoided. **(SIU 2 EA Re-Evaluation)**

22. Plans for suitable pedestrian, bicycle and wheelchair access across I-70 will be developed during the design of the interchanges. (**Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** Pedestrian, bicycle, and Americans with Disabilities Act (ADA) access will be considered across I-70 where there is connectivity to facilities on either side of I-70. **(SIU 2 EA Re-Evaluation)**

23. 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. **(Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** The updated MoDOT Noise Policy was used to address noise impacts. Following analysis, noise walls were determined neither feasible nor reasonable. Final decisions regarding the construction of noise barriers are made during the final design process. If design changes have occurred 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. **(SIU 2 EA Re-Evaluation)**

24. MoDOT will consider potential roadway and median design applications to improve wildlife crossing safety during the design phase of the project. Mitigation plans developed in relation to stream crossing impacts will consider enhancements, such as vegetative plantings, designed to encourage animal species to utilize these vegetative corridors as passageways. Any wildlife enhancements considered during the design phase would be located within the right of way for the Selected Alternative. **(Applicable to this SIU 2 EA Re-Evaluation)**

Existing Commitments from the 2006 SIU 2 EA/FONSI specific to SIU 2. These commitments are subject to change as the Re-Evaluation is approved:

25. MoDOT will conduct a field check for the Running Buffalo Clover (*Trifolium stoloniferum*) at least one year prior to construction activities at the Lamine River crossing. **(Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** This species is no longer listed and therefore a survey is not required. **(SIU 2 EA Re-Evaluation)**

26. MoDOT will continue coordination with the SHPO through the final design process on the one NRHP eligible resource (Marth Barn, 2LF66.1) in SIU 2 that will be adversely affected by implementation of the Preferred Alternative. **(Not Applicable to this SIU 2 EA Re-Evaluation)**

- **Revision:** Impacts to the Marth Barn are no longer anticipated with the re-evaluation Preferred Alternative. **(SIU 2 EA Re-Evaluation)**

New Commitments Specific to this SIU 2 EA Re-Evaluation:

27. 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. **(SIU 2 EA Re-Evaluation)**

28. Additional study and proper remediation of hazardous waste sites that will be encountered by construction will be performed as needed to minimize exposure of construction workers and the public to hazardous wastes and to ensure proper disposal of contaminated earth and other substances. This includes proper disposal of demolition debris in accordance with state law. **(SIU 2 EA Re-Evaluation)**

29. In order to prevent harm to nesting migratory birds, MoDOT will include a Job Special Provision (JSP) in project contract(s) to help ensure that bridges are kept free of active nests before and during construction. **(SIU 2 EA Re-Evaluation)**

30. For projects that encompass more than one SIU, MoDOT will combine the commitments of the affected SIUs into one document that will be converted into either JSPs or contract documents. **(SIU 2 EA Re-Evaluation)**

31. MoDOT will continue to coordinate with MDC and USFWS prior to construction on potential impacts to mussels in Blackwater River. **(SIU 2 EA Re-Evaluation)**

32. During the final design process, MoDOT will consider options to minimize new right of way acquisition. **(SIU 2 Re-Evaluation)**

33. Should I-70 or any part thereof be determined eligible for the NRHP at a later date, FHWA and MoDOT would enter into consultation with the State Historic Preservation Office and the Advisory Council on Historic Preservation pursuant to 36 Code of Federal Regulation 800. **(SIU 2 Re-Evaluation)**

Table 6.3 Re-Evaluation Summary Impact Table

Resource Evaluated	Measurement	Impact Findings	
		SIU 2 2006 Second Tier Approved EA/FONSI Selected Alternative	SIU 2 Re-Evaluation Preferred Alternative
RIGHT OF WAY IMPACTS			
Total Right of Way Required	acres	1,800	3.54
Total Right of Way Cost	USD (2023)	$147 million[6]	$2,313,030
ENVIRONMENTAL IMPACTS			
Wetland Impacts	acres	26.9	1.2
Open Water Impacts	acres	9.9	0
100-year Floodplain Impacts	acres	98.0	36
Regulatory Floodway	acres	0	0
Stream Crossings	#	Not Reported	69
Streams	LF	41,560	3,771[7]
Potential Bat Habitat Impacts	acres	294[8]	81.9
Number of Hazardous Waste Sites	#	32	2
Farmland Impacts	acres	490	3.5
COMMUNITY IMPACTS			
National Register of Historic Places (NRHP) Properties Impacted	#	0	0
Eligible Properties for NRHP Impacted	#	1	0
Section 4(f)/6(f) Properties	#	1	0
Potential Disproportionate Impacts to EJ Populations	#	0	0
Total Number of Parcels Affected	#	Not Reported	4
DISPLACEMENT IMPACTS			
Residential Impacts (Displacement of Dwelling Units)	#	33	0
Business Operation Impacts (Displacement of at Least One Structure)	#	21	0

[6] The total right of way costs for the SIU 2 Selected Alternative in the 2006 Approved EA was previously estimated at $93 million (in 2005 dollars). The total right of way cost for the 2006 Selected Alternative in 2023 dollars was calculated assuming a yearly average inflation rate of 2.58 percent from 2005-2023, as reported by the US Bureau of Labor Statistics.
[7] Total includes both permanent and temporary impacts to all stream features, regardless of potential jurisdictional determination. This analysis is a more conservative approach than the approach used in the 2006 Approved EA. It is anticipated that, following concurrence from USACE, the total impacts will be less than those reported in the previous study.
[8] Total forested land impact from 2006 Approved EA.

7.0 Conclusion

Impacts to socioeconomic and environmental resources identified in the 2006 Second Tier Approved EA/FONSI have been minimized to the extent practicable through the Preferred Alternative identified in this re-evaluation. Results of the re-evaluation revealed the same or reduced impacts for all resources when compared to the 2006 Approved EA/FONSI, except for threatened and endangered species and noise. Regarding threatened and endangered species, while the impact area of the project has decreased since the 2006 EA/FONSI, further investigations and updates in species listings and potential habitat range has resulted in determinations of 'may affect, not likely to adversely affect' for three listed species; whereas, the 2006 EA/FONSI determined no impact. Regarding noise, while the mitigation outcomes were similar in that no mitigation was found feasible or reasonable, impacts to receptors were slightly more in this re-evaluation when compared to the 2006 EA/FONSI due to changes in methodologies for completing noise analyses. The 2006 EA/FONSI determined 72 percent of identified receptors exceeded noise abatement criteria (i.e., greater than 67 dBA); whereas, this re-evaluation determined 84 percent of identified receptors exceeded noise abatement criteria.

The proposed project continues to meet the determinations in the 2006 study, and no further NEPA review is required. Any future modifications to the Preferred Alternative and related impacts would need to be assessed for consistency with the findings of this re-evaluation. Assuming that any modifications are consistent with the findings of this document, this re-evaluation document will remain valid.

FEDERAL AID NO. 70-2(127)
I-70 SIU 2, LAFAYETTE, SALINE, AND COOPER COUNTIES,
FROM MM 39 (1.0 MILE EAST OF JOHNSON ROAD) TO MM 99.8 (2.0 MILES WEST OF ROUTE 5)
MoDOT JOB NO. J4I1341E/ST0016

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

12/18/2024	REBECCA JO ROST Digitally signed by REBECCA JO ROST Date: 2024.12.18 10:21:44 -06'00'	Environmental Protection Specialist
Date of Approval	For FHWA	Title