

EIS SUMMARY

Substantive changes to the EIS Summary since the publication of the DEIS

- Section ES.1 – Updated project description to reflect the publication of the DEIS and the publication of this FEIS concurrently with the ROD
- Section ES.3.3 – Added this new section to describe Central Alternative 1B Modified (Selected) and explain its development
- Section ES.4 – Updated public involvement and agency coordination text to add description of the DEIS public hearing, public meeting for the Single Preferred Alternative, and recent agency coordination meetings
- Section ES.5 – Updated this section to include Central Alternative 1B Modified in the comparison of alternative impacts and its identification as the Selected Alternative. Updated alternative impacts based on changes made in Chapters 4 and 5 of the FEIS
- Section ES.6 – Edited mitigations and commitments specific to the design and implementation of Central Alternative 1B Modified (Selected)
- Section ES.7 and ES.8 – Updated areas of controversy and issues to be resolved to reflect status for the FEIS

This Environmental Impact Statement (EIS) Summary provides a high-level overview of the I-69 Ohio River Crossing (ORX) project's study process, analysis, and effects. It is not intended to inventory all data and analysis, but rather to summarize key results that differentiate the alternatives and assist in the decisions to be made. Readers who are interested in more detailed analysis should refer to the full text of the Final Environmental Impact Statement (FEIS).

ES.1 PROJECT DESCRIPTION

The Federal Highway Administration (FHWA), Indiana Department of Transportation (INDOT), and Kentucky Transportation Cabinet (KYTC) issued a revised Notice of Intent (NOI) in the *Federal Register* on February 13, 2017 for the preparation of an Environmental Impact Statement (EIS) for the I-69 ORX project in the Evansville, IN and Henderson, KY area, which is part of the National I-69 Corridor that extends between Mexico and Canada. An NOI was previously issued for the project on May 10, 2001. Under that NOI, a Draft Environmental Impact Statement (DEIS) was completed in 2004, but the project was subsequently suspended in 2005. Following the revised NOI, early agency coordination was conducted and initial public and stakeholder meetings were held to present and define the EIS scope. The Notice of Availability (NOA) of the second DEIS was published in the *Federal Register* on December 14, 2018, including publication of

the close of the comment period on February 8, 2019 (see **Section ES.4** for further details). This FEIS for the I-69 ORX project was prepared by FHWA, INDOT, and KYTC in accordance with the National Environmental Policy Act (NEPA) of 1969.

The I-69 ORX project meets the criteria for combining the FEIS and Record of Decision (ROD): the FEIS does not include substantial changes to the proposed action in terms of environmental or safety concerns, nor are there significant new circumstances or information relevant to environmental concerns of the proposed action or its impacts in the context of combining the FEIS and ROD. Other factors that were considered when making this decision included: no coordination activities tied to the FEIS; no unresolved interagency agreements to be identified in the FEIS; no substantial degree of controversy; no reasonable alternatives that were not appropriately compared in the DEIS; and no compliance issues to be resolved before issuance of the ROD. Therefore, a ROD has been completed and approved at the same time as this FEIS. The NOA of the combined FEIS and ROD will be published in the *Federal Register*, announcing the decision and the end of the NEPA process.

The proposed action includes the development of an interstate across the Ohio River that would connect the southern terminus of I-69 in Indiana with the northern terminus of I-69 in Kentucky. Currently, I-69 does not cross the Ohio River and the only cross-river access between Evansville and Henderson is via US 41, which is classified as a principal arterial and does not meet current interstate design standards.

The I-69 ORX project area extends from I-69 (formerly I-164) in Indiana on the south side of Evansville (i.e., northern terminus) across the Ohio River to I-69 (formerly Edward T. Breathitt Pennyryle Parkway) at the KY 425 interchange southeast of Henderson, KY (i.e., southern terminus) (**Figure ES.1-1**).

The section of Edward T. Breathitt Pennyryle Parkway between KY 351 and KY 425 that was not re-designated as I-69 was recently re-designated as US 41. The western limit of the project area is parallel to and extends a maximum of about 2,000 feet west of US 41. The eastern limit of the project area extends about 1,500 feet to 3.4 miles east of US 41.

ES.2 PURPOSE AND NEED

ES.2.1 PROJECT NEEDS

Four primary needs have been identified for the project:

- Lack of National I-69 Corridor system linkage
- High cost of maintaining cross river mobility on existing facilities
- Unacceptable levels of service for cross-river traffic
- High-crash locations in the I-69/US 41 corridor

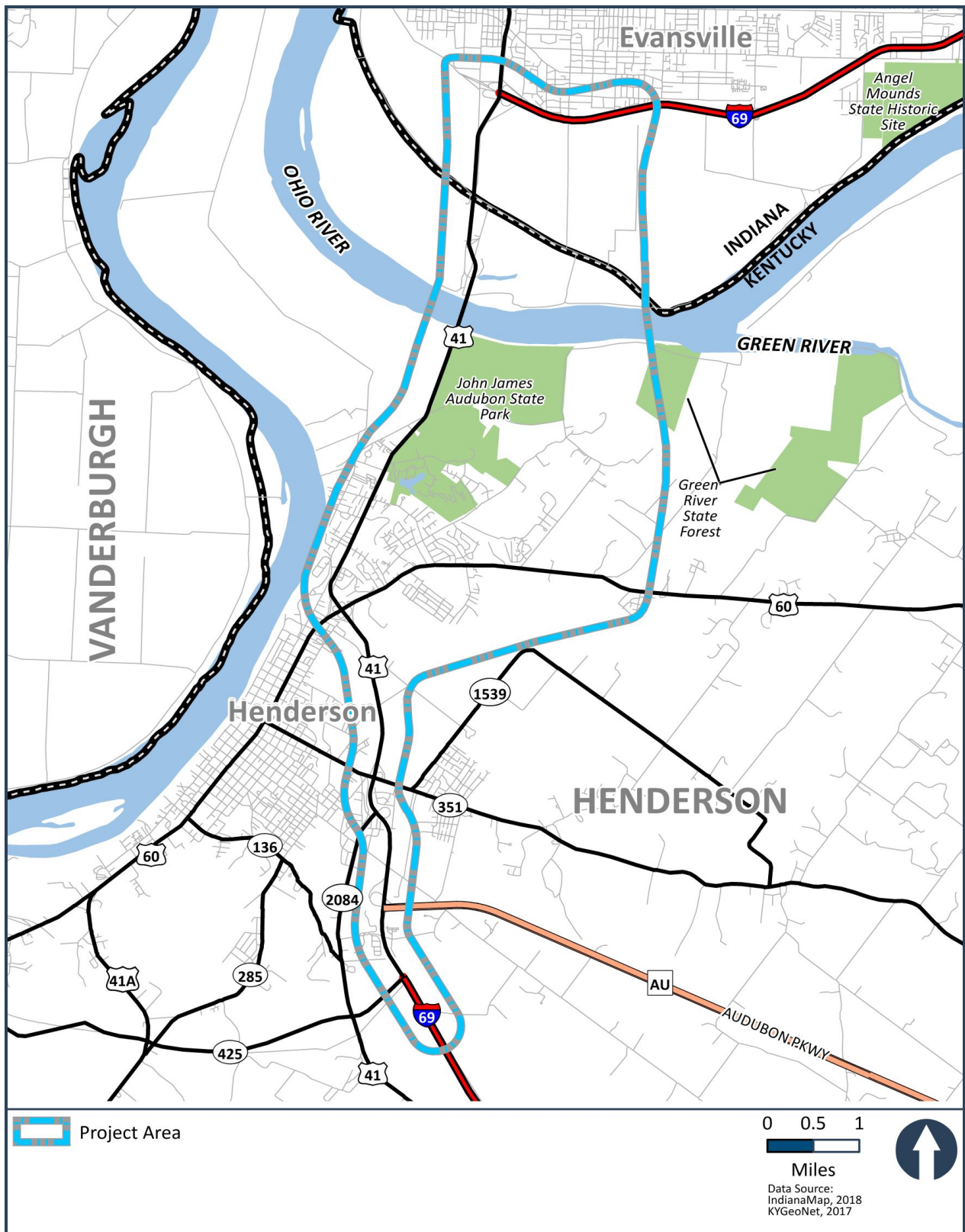


Figure ES.1-1. Project Area

ES.2.2 PROJECT PURPOSE

Based on the project's needs, the project's purpose is to:

- Provide cross-river system linkage and connectivity between I-69 in Indiana and I-69 in Kentucky that is compatible with the National I-69 Corridor
- Develop a solution to address long-term cross-river mobility
- Provide a cross-river connection that reduces traffic congestion and delay
- Improve safety for cross-river traffic

ES.2.3 PERFORMANCE MEASURES FOR SATISFYING PURPOSE AND NEED

Project alternatives have been developed and evaluated for their ability to satisfy the project's purpose and need using the following criteria:

- Provide a roadway facility for the Section of Independent Utility (SIU) #4¹ that can be designated as I-69: An alternative must meet interstate design standards. SIU #4 includes the section of the National I-69 Corridor between Evansville, IN and Henderson, KY.
- Identify a cost effective and affordable plan for long-term cross-river mobility: Taking into consideration all cross river capacity (i.e., new I-69 bridge and any existing US 41 bridges that remain in service), construction costs, long-term operation and maintenance costs, and potential toll revenue, alternatives must be financially feasible based on anticipated funding availability.
- Provide a river crossing for I-69 operating at a minimum Level of Service² (LOS) D at its most congested condition (LOS C is preferable).
- Provide a river crossing that improves safety: an alternative must be able to shift traffic from existing US 41, which is classified as a principal arterial and has multiple high crash locations, to the new I-69 facility.

ES.3 ALTERNATIVES

ES.3.1 ALTERNATIVES DEVELOPMENT AND SCREENING

Based on the project's purpose and need, an initial range of alternatives was developed, evaluated, and screened using secondary source and preliminary survey data, and input from the public and federal, state, and local agencies. Because the range of alternatives was developed based on conceptual designs, they were referred to as corridors. Each corridor was evaluated on the degree to which it meets the purpose and need; its potential social, environmental, and economic impacts; and its conceptual cost. In addition to the No Build Alternative, the following five corridors were developed based on alternatives previously presented in the 2004 *Interstate 69*

¹ In the National I-69 Corridor plan, the I-69 ORX project area is referred to as SIU #4.

² LOS is a performance measure used to quantify the performance of a roadway. LOS is defined in categories from A to F. LOS A represents the highest quality of service, with free-flowing conditions; LOS F represents heavy congestion or traffic flow breakdown conditions.

Henderson, Kentucky to Evansville, Indiana Draft Environmental Impact Statement and the 2014 I-69 Feasibility Study, Henderson, Kentucky, SIU #4, Final.

- West Corridor 1 (Based on Alternative 7 from the 2014 Feasibility Study)
- West Corridor 2 (Based on Corridors F and G from the 2004 DEIS and Alternatives 5 and 6 from the 2014 Feasibility Study)
- Central Corridor 1 (Based on Alternative 1a from the 2014 Feasibility Study)
- Central Corridor 2 (Based on the Preferred Alternative 2 from the 2004 DEIS)
- East Corridor (Based on Alternative 3 from the 2004 DEIS)

The results of the evaluation of these corridors were presented in a *Screening Report (Appendix B-1)* completed on July 28, 2017 that recommended three corridors — West Corridor 1, West Corridor 2, and Central Corridor 1 — be carried forward for more detailed evaluation in the DEIS, in addition to the No Build Alternative. In the *Screening Report*, for West Corridors 1 and 2, the states assumed that both US 41 bridges would be taken out of service for vehicular use and the new I-69 bridge would have six lanes. For Central Corridor 1, the states assumed that both US 41 bridges would remain open and the new I-69 bridge would have four lanes. However, the report stated that the future use of the existing US 41 bridges and corresponding number of lanes on the new I-69 bridge for each corridor would be subject to further evaluation.

Following the *Screening Report*, preliminary designs were then developed within these corridors based on public and agency input, assessment of potential environmental and right-of-way impacts, and results of a traffic analysis. Follow-on studies were conducted regarding the location and configuration of interchanges, the disposition of and long-term maintenance costs for the existing US 41 bridges, and tolling scenarios with resulting traffic patterns. This included the development, evaluation, and screening of the following three different US 41 and I-69 bridge scenarios for each of the three corridors.

- Build a six-lane I-69 bridge for all cross-river traffic and remove both US 41 bridges from vehicular use.
- Build a four-lane I-69 bridge and retain one US 41 bridge for local vehicular use.
- Build a four-lane I-69 bridge and retain both US 41 bridges for local vehicular use.

The results from this next level of evaluation of the project corridors were presented in a *Screening Report Supplement (Appendix B-2)*, dated February 7, 2018. The *Screening Report Supplement* evaluated combinations of bridge scenarios and interchange locations for each corridor and recommended the following alternatives to be carried forward for detailed evaluation in the DEIS:

- No Build Alternative: required by the National Environmental Policy Act of 1969 (NEPA) to serve as a baseline for comparison
- West Alternative 1: four lanes on the new I-69 bridge and retain one of the existing US 41 bridges

- West Alternative 2: six lanes on the new I-69 bridge and take both existing US 41 bridges out of service
- Central Alternative 1: four lanes on the new I-69 bridge and retain one of the existing US 41 bridges

Following the *Screening Report Supplement*, it was determined that the remaining US 41 bridge that would be taken out of service for vehicular traffic would be removed instead. This decision was made following coordination with the local officials who indicated that they would not take ownership of the remaining bridge for non-vehicular use (i.e., pedestrian and bicycle use). It was also determined that the northbound US 41 bridge would be retained and the southbound US 41 bridge would be removed and both bridges would be removed for West Alternative 2. In addition, two options for Central Alternative 1 were developed: Central Alternative 1A, which would include tolls on the US 41 and I-69 bridges and Central Alternative 1B, which would only include tolls on the I-69 bridge.

Consistent with the Evansville Metropolitan Planning Organization's (EMPO) fiscally-constrained *Metropolitan Transportation Plan*, tolling I-69 will be a key part of the financing for this project. The toll policy will define toll rates for different vehicle types and will be developed with the federally required financial plan prior to construction. The NEPA process will not determine the toll policy but will evaluate and document the environmental consequences associated with tolling being a part of the project.

An evaluation was conducted of two potential tolling options, one that would toll only the I-69 bridge and another that would toll both the I-69 bridge and the remaining northbound US 41 bridge. Options that would toll the remaining northbound US 41 bridge shift more traffic to the I-69 bridge and provide a conservatively high estimate of traffic impacts on I-69. Options that would not toll the remaining northbound US 41 bridge would reduce traffic volumes on the I-69 bridge, thereby reducing noise impacts along I-69 and also avoiding environmental justice (EJ) impacts by providing a toll-free crossing, but would increase traffic impacts along US 41. For purposes of evaluating potential impacts of tolling options during alternatives development and screening, the states assumed that toll rates would be similar to the Louisville, KY metropolitan area bridges for the I-65 and KY 841/SR 265 Ohio River crossings (i.e., \$2.00 for cars, \$5.00 for medium trucks, and \$10.00 for large trucks). Both projects are located in metropolitan areas within the same geographical region and have comparable total costs. The toll policy that is discussed above will set the final toll rates, which could be higher or lower than these rates. Higher toll rates could have more impacts or require additional mitigation, and conversely lower toll rates could have fewer impacts and require less mitigation. Note that the toll rates for Central Alternative 1B Modified (Selected) were updated to reflect an assumed open to traffic year of 2033 and an inflation rate of 2.5 percent per year. Therefore, the assumed toll rates for Central Alternative 1B Modified (Selected) were updated to \$3.00 for cars, \$7.52 for medium trucks, and \$15.02 for large trucks.

ES.3.2 DESCRIPTION OF DEIS ALTERNATIVES

The three DEIS build alternatives are shown in **Figure ES.3-1** and described in greater detail in the following sections, along with the No Build Alternative.

NO BUILD ALTERNATIVE

With the No Build Alternative, the states assumed that all transportation projects listed on the EMPO *Transportation Improvement Program* (TIP) would be built except for the I-69 ORX project. The No Build Alternative would likely include major rehabilitations of the existing US 41 bridges, even though they are currently not included in the EMPO TIP. This is based on a review of recent bridge inspection reports and an understanding of the structure types and traffic loads. The engineering consultants who reviewed the recent report anticipate that the structural condition of the bridges will continue to deteriorate within the next 25–30 years to the point where a major rehabilitation of the bridges would be required.

WEST ALTERNATIVE 1

West Alternative 1 consists of a four-lane, limited access highway and a new bridge approximately 5,400 feet long over the Ohio River and associated floodway. This alternative would be located approximately 70 feet west of the existing southbound US 41 bridge. The new bridge would include four lanes, with the capacity to expand to six lanes in the future, if needed, by restriping the lanes on the bridge. The northbound US 41 bridge would be retained, and the southbound US 41 bridge would be removed. The northbound US 41 bridge, which has two lanes, would be converted from a one-way bridge to a two-way bridge for local traffic.

Most of West Alternative 1 would utilize a rural cross-section, including a grass median; however, through Henderson, it would utilize an urban cross-section and include a narrower median with a concrete barrier. The total length of West Alternative 1 is 11.1 miles, which includes 2.9 miles of existing US 41.

West Alternative 1 would begin on existing I-69 in Indiana just east of the I-69/US 41/Veterans Memorial Parkway interchange and become the through movement for I-69. Connections to US 41 to the north and Veterans Memorial Parkway to the west would be provided. The alternative would include a bridge to carry I-69 over Waterworks Road and Nugent Drive while local access to Waterworks Road and Ellis Park would be maintained by US 41.

In Kentucky, the alternative would include a bridge to carry I-69 over Stratman Road, with local access to Stratman Road and Wolf Hills Road provided by US 41 and the local bridge. The alternative would continue south and run parallel to and approximately one block west of US 41 and the US 41 commercial strip. There would be no changes to US 41 through this area. An interchange would be constructed at Watson Lane to provide highway access to the commercial strip and adjacent residential areas. An overpass (no interchange) would be provided at Barker Road to maintain connection to residential areas west of the alternative. A local access road with a sidewalk would be provided on the west side of the alternative between Barker Road and Atkinson Park.

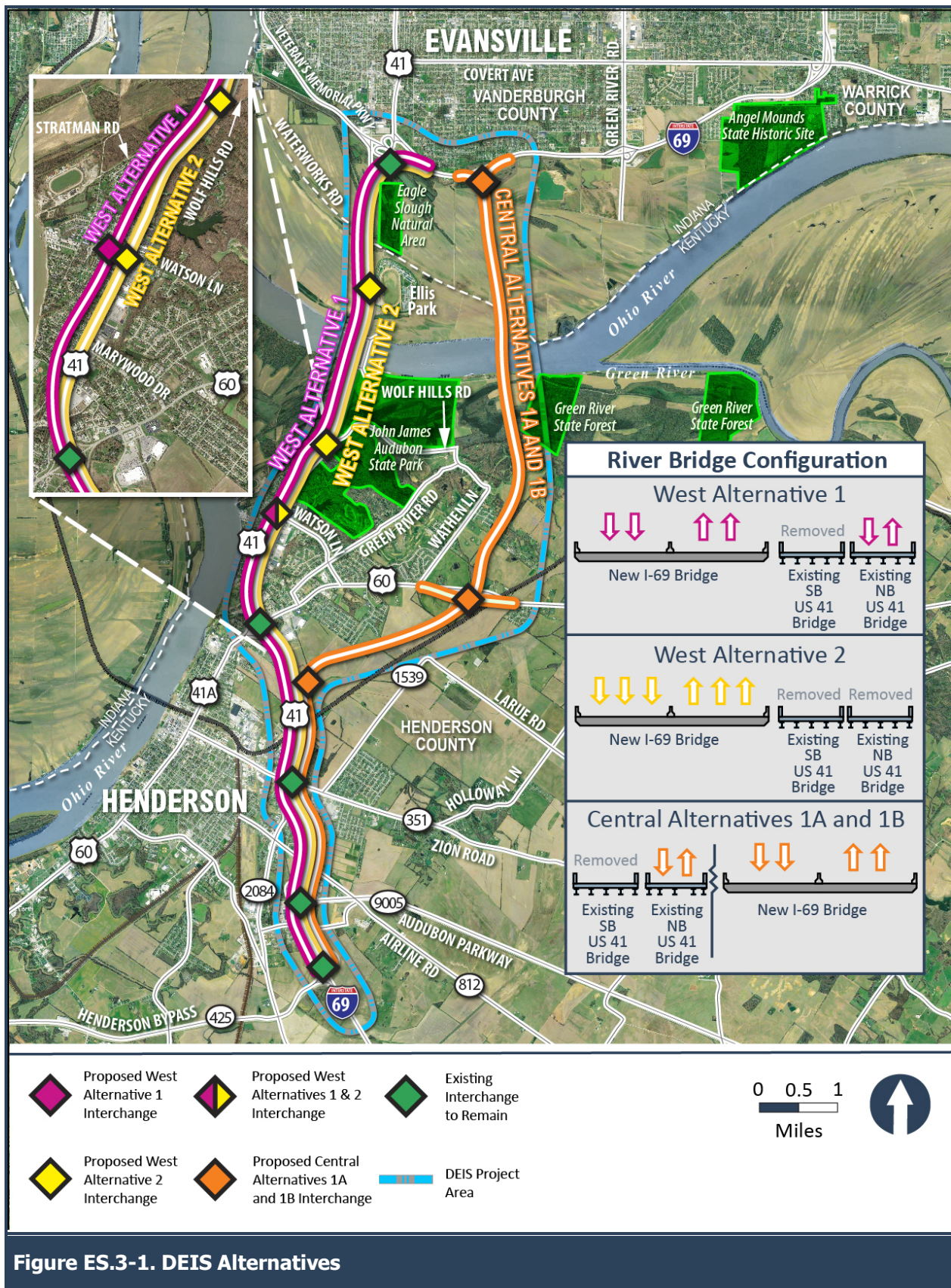


Figure ES.3-1. DEIS Alternatives

The alternative would then continue south and tie into the existing four-lane, fully-controlled access section of US 41 south of the US 60 interchange. The US 60 interchange would be modified to provide connections to and from existing US 41, US 60, and I-69. US 41 (formerly named Edward T. Breathitt Pennyryle Parkway) south of US 60 to KY 425, where I-69 in Kentucky currently ends, would be modernized to meet interstate standards through improvements to ramps and merge areas.

WEST ALTERNATIVE 2

West Alternative 2 would include a new bridge approximately 5,400 feet long over the Ohio River and associated floodway. It would be located approximately 70 feet west of the existing southbound US 41 bridge. The new Ohio River bridge and all of the approach roadways would include six lanes. Both existing US 41 bridges would be removed.

Most of West Alternative 2 would utilize a rural cross-section, including a grass median; however, through Henderson, it would utilize an urban cross-section and include a narrower median with a concrete barrier. The total length of West Alternative 2 is 11.0 miles, which includes 2.9 miles of existing US 41.

West Alternative 2 would begin on existing I-69 in Indiana just east of the I-69/US 41/Veterans Memorial Parkway interchange and become the through movement for I-69. Connections to US 41 to the north and Veterans Memorial Parkway to the west would be provided. From the US 41/I-69 interchange to Ellis Park, the alternative would follow the existing US 41 alignment. An overpass bridge would carry Waterworks Road over I-69 and an interchange would be provided at Ellis Park.

In Kentucky, the alternative would follow existing US 41 through the US 41 commercial strip, with local access provided via a reconstructed US 41, which would function as a frontage road, located adjacent to and east of the alternative. The reconstructed US 41 would include two lanes plus a center two-way left turn lane and a new sidewalk on the east side. There are currently no sidewalks along US 41 in this area. An interchange would be provided at Stratman Road/Wolf Hills Road and at Watson Lane. At the Watson Lane interchange, US 41 would be relocated approximately 300 feet to the east to provide adequate spacing between the interchange and the US 41/Watson Lane intersection. An overpass (no interchange) would be provided at Rettig Road to maintain connection to residential areas west of the alternative. In addition, a shared-use path would be provided on the west side of the new interstate. The alternative would continue south, within the US 41 corridor, to the existing US 60 interchange, which would be modified to provide connections to and from existing US 41, US 60, and I-69. The existing four-lane section of US 41 (formerly named Edward T. Breathitt Pennyryle Parkway) south of US 60 to KY 425, where I-69 in Kentucky currently ends, would be modernized to meet interstate standards.

CENTRAL ALTERNATIVES 1A AND 1B (PREFERRED)

Central Alternatives 1A and 1B were identified as the Preferred Alternatives in the DEIS. Central Alternative 1A would include tolls on the US 41 and I-69 bridges. Central Alternative 1B would only include tolls on the I-69 bridge. Otherwise Central Alternatives 1A and 1B are the same. Central Alternatives 1A and 1B (Preferred) would include a new bridge approximately 7,600 feet

long over the Ohio River and associated floodway, located approximately 1.5 miles east of the existing US 41 bridges. The new Ohio River bridge would include four lanes, and would be wide enough to carry six lanes in the future, if needed, by restriping the lanes on the bridge. The approach roadways would be constructed four-lanes wide. The northbound US 41 bridge would be retained for vehicular traffic and the southbound US 41 bridge would be removed. The northbound US 41 bridge, which has two lanes, would be converted from a one-way bridge to a two-way bridge for local traffic. Other than transitions to the single two-lane US 41 Ohio River bridge, there would be no changes to US 41 through the commercial strip or north of the river past Ellis Park and the I-69/US 41/Veterans Memorial Parkway interchange.

Central Alternatives 1A and 1B (Preferred) would utilize a rural cross-section and include a depressed grass median outside of the bridge limits. The total length of Central Alternative 1 is 11.2 miles, which includes 2.8 miles of existing US 41.

Central Alternatives 1A and 1B (Preferred) would begin at existing I-69 in Indiana, approximately 1 mile east of the I-69/US 41/Veterans Memorial Parkway interchange. The alternatives would continue south across the Ohio River just west of a gas transmission line. They would remain just west of the gas transmission line near Green River State Forest, then turn southwest where an overpass would be provided to carry the access road for the gas transmission line over the alternative. The alternatives would continue south to US 60 where an interchange would be provided. As part of the US 60 interchange, US 60 would be relocated approximately 400 feet south, which would require a new bridge over the CSX Railroad east of the interchange. The alternatives would continue southwest and connect with US 41 via an interchange approximately 1 mile south of the US 60 interchange. From the alternative's interchange with US 41 to KY 425, the existing four-lane US 41 would be modernized to meet interstate standards through improvements to ramps and merge areas.

The DEIS identified Central Alternatives 1A and 1B as the Preferred Alternatives for the following reasons: 1) the fewest residential relocations, no commercial relocations, the fewest impacts to Section 4(f) resources and sites with recognized environmental conditions (REC), and the fewest impacts to many natural resources including wetlands, floodways, managed lands, forested habitat, and streams; 2) provision of cross-river route redundancy for the region by complementing the existing US 41 Ohio River crossing with a new I-69 bridge; and 3) the lowest total cost.

ES.3.3 DEVELOPMENT AND DESCRIPTION OF CENTRAL ALTERNATIVE 1B MODIFIED (SELECTED)

In March 2019, a Value Engineering (VE) Study was conducted on Central Alternatives 1A and 1B (Preferred) from the DEIS via a series of workshops. The purpose of the VE Study was to identify design modifications to Central Alternatives 1A and 1B (Preferred) that may further reduce costs, improve traffic performance, and minimize impacts, while still meeting the project's purpose and need. In addition, in 2020, the Kentucky legislature adopted *Kentucky's FY 2020 – FY 2026 Highway Plan* that included funding for the design and construction of the first section of the I-69 ORX project (i.e., Section 1), which includes all work from KY 425 to the US 60 interchange. In preparation for construction of Section 1 (anticipated to begin in 2022), KYTC led a preliminary design study of that section of Central Alternatives 1A and 1B (Preferred). Section 2 of the project

will include the remainder of the project from the US 60 interchange, across the Ohio River, and connecting to I-69 in Indiana.

It is important to note that Central Alternatives 1A and 1B (Preferred) have the same design and, therefore, the same construction and right-of-way limits. The only difference is that Central Alternative 1A would include tolls on the remaining US 41 bridge and Central Alternative 1B would not. As a result, the physical impacts from the footprint of these alternatives are the same. The only differences in impacts (i.e., traffic, noise, socioeconomics, and environmental justice populations) would be associated with whether or not the US 41 bridge would be tolled.

Based on the recommendations from the VE Study and the Section 1 Planning Study, and with consideration to the public and agency comments received on the DEIS, design modifications were made to Central Alternatives 1A and 1B (Preferred). In addition, based on potential impacts that tolling the US 41 bridge would have on the local residents, businesses, and environmental justice populations and on comments from the public on the DEIS that opposed tolls on the US 41 bridge, INDOT and KYTC determined that the US 41 bridge should not be tolled (i.e., Central Alternative 1B). As a result, and with the incorporation of the design modifications, Central Alternative 1B was renamed Central Alternative 1B Modified and identified as the Single Preferred Alternative. INDOT and KYTC subsequently provided both the public and agencies an opportunity to review and comment on Central Alternative 1B Modified as the Single Preferred Alternative during a 15-day comment period which included a virtual public meeting on April 1, 2021. Subsequently, Central Alternative 1B Modified was identified as the Selected Alternative. The original design and impacts associated with Central Alternatives 1A and 1B (Preferred) as presented in the DEIS have been carried forward into the FEIS. This provides a point of reference in the project's development and allows the comparison of those impacts to the changes in design and impacts associated with Central Alternative 1B Modified (Selected). This comparison was also the basis for the determination, described in **Chapter 1, Section 1.1**, that the changes in impacts were not substantial and that combining the FEIS/ROD was appropriate.

The following is a summary list of the design modifications associated with Central Alternative 1B Modified (Selected). **Appendix A-4** provides detailed mapping of the design features noted below. Note that there were no design modifications to the termini, general alignment, and function associated with Central Alternative 1B Modified (Selected).

- **Construction Phasing** – The project will be constructed in two phases that are referred to as Sections 1 and 2. Section 1 will be constructed first and includes all project work from KY 425 to the US 60 interchange, including the upgrades to existing US 41 and the first 2.9 miles of new terrain highway. Section 2 of the project will include the remainder of the project from the US 60 interchange, across the Ohio River, and connecting to I-69 in Indiana. Upon completion of Section 1, drivers will be able to utilize future I-69 as far north as US 60, but cross-river traffic will still utilize US 41 to cross the river until completion of Section 2.
- **Interchange with Existing I-69 in Indiana** – The latest modified design provides a more direct route that may include an at-grade intersection of two ramps: (1) eastbound Veterans Memorial Parkway to northbound I-69 and (2) northbound I-69 to westbound

Veterans Memorial Parkway. The evaluation of this interchange, and other viable alternatives, is ongoing, and the final layout will require approval of an Interstate Access Document by FHWA.

- **I-69 Bridge** – The width of the I-69 bridge shoulders were reduced from 12 feet to 10 feet on the outside and from 8 feet to 4 feet on the inside.
- **Bowling Lane Extension** – The local access bridge over I-69 located north of the US 60 interchange was replaced with an extension of Bowling Lane, along with a driveway, east of and parallel to I-69.
- **US 60 Interchange** - The interchange was modified to improve the connection between Tilman-Bethel Road and the relocated US 60 and to remove the existing section of US 60 and the associated bridge over the CSX railroad. In addition, the I-69 northbound exit and entrance ramps were shifted to the west to allow sufficient space between the ramp intersection and the Tilman-Bethel Road intersection. The modification also included the relocation of a powerline between the interchange and the historic Ellis-Neville/Lee Baskett House. On the west side, the relocated portion of US 60 was shifted north approximately 130 feet to avoid impacts to a cemetery.
- **Stormwater Detention Basins** - A large stormwater detention basin was added adjacent to and south of I-69 between the US 41 and US 60 interchanges.
- **US 41 Interchange in Kentucky** - The construction of the US 41 interchange will be phased to ensure efficient cross-river travel. The Section 1 construction phase will include a trumpet-style interchange, which maintains two-lanes of free-flow traffic on the connection to existing US 41 for both northbound and southbound cross-river traffic. Once Section 2 and the interstate connection to I-69 in Indiana is complete, the interchange will be modified to a traditional diamond interchange with one loop ramp for the US 41 southbound to I-69 northbound movement. This interchange will provide a direct connection to Kimsey Lane to the east.
- **KY 351 Interchange** - The interchange would be reconstructed to include roundabouts at each of the ramp intersections and another roundabout at the KY 351/KY 2084 intersection. The partial interchange at KY 2084 would be removed to meet interstate standards for interchange spacing, and the northbound bifurcated section of KY 2084 would be relocated along the existing southbound lane.
- **Northbound Auxiliary Lane between the Henderson Bypass and Audubon Parkway Interchanges** - A northbound auxiliary lane was added between the Henderson Bypass and Audubon Parkway interchanges.

ES.4 PUBLIC INVOLVEMENT AND AGENCY COORDINATION

ES.4.1 PUBLIC INVOLVEMENT

The public involvement program consisted of advisory committees, public open houses, small group meetings, and other outreach and information tools designed to provide an opportunity for all stakeholders to participate. The advisory committees included the River Cities Advisory

Committee (RCAC), EJ Subcommittee, and the Section 106 consulting parties. The RCAC and EJ Subcommittee met seven times at the following key project milestones.

- Public Scoping/Introduction
- *Screening Report*
- Short list of corridors, future of US 41 bridges, and tolling
- *Screening Report Supplement* and preliminary alternatives
- Updated alternatives, visualization, public surveys, Community Conversations, and tolling mitigation
- Updated preferred alternatives, including route and financial analysis, and DEIS public hearing/comment process
- Development and identification of Central Alternative 1B Modified as the Single Preferred Alternative and virtual public meeting/comment process (virtual joint meeting with EJ Subcommittee)

The consulting parties met four times and included historical societies, local governments, landowners, and other individuals with an interest in the project's potential effect on historic properties. The consulting parties played a key role in:

- Identifying historic properties that may be affected;
- Providing input regarding the potential effects of the project;
- Assisting in the development of appropriate mitigation measures to resolve any adverse effects; and
- Assisting in the finalization of appropriate mitigation measures to resolve adverse effects of Central Alternative 1B Modified (Selected), prior to the finalization and execution of the Memorandum of Agreement.

In addition to the advisory committee meetings, several rounds of public open houses (**Table ES.4-1**) were held in Evansville, IN and Henderson, KY at key project milestones to provide the public the opportunity to review project information, have one-on-one conversations with project team members, and provide comments, which were accepted at the meetings and via phone, mail, email, the project website, and at the project offices. Three rounds of public open houses were hosted prior to the publication of the DEIS, with each round consisting



Attendees review the map of I-69 ORX's preliminary alternatives at a February 2018 open house.

of two meetings, one in each state, for a total of six open houses. A round of public hearings, one in each state, was held after publication of the DEIS during the formal comment period that ended on February 8, 2019. Additionally, a virtual public meeting was conducted after identification of Central Alternative 1B Modified as the Single Preferred Alternative, with a 15-day comment period that ended on April 16, 2021. Prior to each public open house, project team members also met with elected officials which included mayors, state legislators, members of Congress, county councils, and city council members.

Table ES.4-1. Public Open Houses

MILESTONE	DATE	NO. OF ATTENDEES
Project Purpose and Need, preliminary corridors and the NEPA process	April 18, 2017 (Henderson) April 20, 2017 (Evansville)	207
Release of <i>Screening Report</i> and the short list of corridors	July 31, 2017 (Evansville) August 1, 2017 (Henderson)	333
Release of the <i>Screening Report Supplement</i> , with additional details for the preliminary alternatives	February 6, 2018 (Henderson) February 7, 2018 (Evansville)	273
Public hearings for the DEIS	January 7, 2019 (Henderson) January 8, 2019 (Evansville)	347
Identification of Central Alternative 1B Modified as the Single Preferred Alternative prior to the publication of the FEIS and ROD	April 1, 2021 (Virtual)	221

In April and May 2018, and in January 2019 after the DEIS was published, the project team hosted a total of eight Community Conversations in Evansville and Henderson with residents and business owners to obtain feedback about the preliminary alternatives and tolling, and to solicit information for use in identification of potentially disproportionately high and adverse effects on low-income and minority individuals, identified as EJ populations. EJ outreach efforts



A project team member addresses the crowd at a Community Conversation in Henderson.

also included mailing public surveys to individuals in communities identified as supporting EJ populations and attending events with organizations that represent EJ populations.

A Business Information Survey (BIS) was also conducted to gain insight into nearby businesses and how the alternatives could affect their business and customer base. Additionally, at key

stages in the NEPA process, the project team distributed surveys to provide feedback on specific topics. These surveys were distributed at open houses and/or mailed to project area residences.

Other efforts to provide project information to, obtain input from, and communicate with the public included:

- project offices³ in Evansville and Henderson;
- a project phone number ((888) 515-9756) and email address (info@I69OhioRiverCrossing.com);
- a project website (www.I69OhioRiverCrossing.com);
- media relations with reporters and outlets in Southern Indiana and Western Kentucky;
- social media such as Facebook (I-69 Ohio River Crossing), Twitter (I69ORX), and YouTube (I-69 Ohio River Crossing);
- other digital outreach, such as videos, e-newsletters, and SMS text messaging;
- printed materials to inform residents; and
- small group presentations to inform and answer questions at the request of local organizations, community service clubs, neighborhood associations, and business organizations.

All information gathered from the meetings and via social media was shared via the project website.

Based on the public outreach efforts, including the comment period following the DEIS and following the public meeting for the Single Preferred Alternative, the following is a summary of common comments received:

- Supported Central Alternative 1A/1B corridor over West Alternative 1 or West Alternative 2.
- Supported keeping the US 41 crossing non-tolled, as in Central Alternative 1B or 1B Modified. Concerns were primarily focused on the potential economic impact on businesses in the US 41 commercial strip in Henderson, local drivers who regularly cross the Ohio River, and on low-income drivers (i.e., environmental justice populations).
- Supported keeping both existing US 41 bridges operational and non-tolled.
- Recommended prohibiting heavy trucks, or discouraging them through the use of higher tolls on the US 41 Ohio River bridge, to reduce long-term maintenance costs.
- Suggested providing a discounted or toll-free option for local drivers.
- Suggested providing pedestrian/bicycle/ADA-compliant access across the Ohio River.

³ Both project offices closed in March 2020 following the COVID-19 pandemic. On June 11, 2020, the project office in Evansville permanently closed; the project office in Henderson reopened on June 22, 2021.

ES.4.2 AGENCY COORDINATION

NOTICE OF INTENT AND EARLY COORDINATION

A NOI for the I-69 ORX EIS was published in the *Federal Register* on February 13, 2017. On March 7, 2017, a copy of the NOI was attached to invitation letters sent to federal and state agencies, tribes and the EMPO who would likely have an interest in and/or jurisdiction over aspects of the proposed project. As part of early coordination, these organizations were invited to become Participating or Cooperating Agencies, attend Interagency Advisory Committee (IAC) meetings, and comment on the proposed project. The following three federal agencies accepted the invitation to serve as a Cooperating Agency on the project. A Cooperating Agency is a federal agency other than the lead agency who has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal or reasonable alternative.

- U.S. Coast Guard (USCG) Eighth District
- U.S. Fish and Wildlife Service (USFWS) –Indiana and Kentucky
- U.S. Army Corps of Engineers (USACE)

In addition, 25 other federal and state agencies, nine tribes, and the EMPO accepted the invitation to serve as a Participating Agency on the project.

INTERAGENCY ADVISORY COMMITTEE

The IAC was formed to enable the project team to present project information to and obtain input from the Cooperation and Participating agencies regarding the development, environmental impact analysis, and screening of project alternatives throughout the EIS process. Five IAC meetings were held as key milestones in the project. The first IAC meeting was held to discuss the project's history, purpose and need, range of alternatives, proposed environmental study methods, and environmental issues. The second IAC meeting was held to discuss the results of the *Screening Report* and the identification of project corridors that were recommended to be carried forward for further evaluation. Although an IAC meeting was not held following the completion of the *Screening Report Supplement*, which identified the alternatives to be evaluated in greater detail in the DEIS, the report was submitted to the agencies for review and comment. At the third IAC meeting, the agencies participated in a field tour of the DEIS alternatives and the potential resources that may be impacted. A fourth IAC meeting was held after the publication of the DEIS during the comment period to review the Preferred Alternatives as well as provide a summary of impacts and potential mitigation measures and commitments. The decision of identifying Central Alternative 1B Modified as the Single Preferred Alternative was presented for review and comment at the fifth IAC meeting, prior to which a document titled *Preferred Alternative Updates for Public Comment*, dated March 30, 2021, was provided (**Appendix C-2**).

ADDITIONAL AGENCY COORDINATION

In addition to early coordination and the IAC meetings, further coordination with USCG was conducted regarding the project's *Navigation Simulation Modeling Report and Navigation Clearance Study* (**Appendix P-1**). Following USCG's review of these reports, they determined that the

vertical and horizontal clearance of the proposed new I-69 bridge for West Alternatives 1 and 2 and Central Alternatives 1A and 1B would be acceptable.

Meetings were held jointly with USFWS Indiana and Kentucky field offices to discuss the presence and potential impacts to threatened and endangered species, specifically mussels in the Ohio River and the Indiana and northern long-eared bats. These meetings focused on the methodology that would be used for the surveys, the results of the surveys, the effects determinations and submittal of the Biological Assessment (BA) ([Appendix K-4](#)), and subsequent issuance of the Biological Opinion (BO) for the project ([Appendix K-5](#)). Additional coordination was conducted with USFWS regarding the Green River National Wildlife Refuge and Conservation Partnership Area to coordinate an advance right-of-way acquisition by KYTC for the I-69 ORX project.

Meetings were held with the City of Henderson, Henderson County Schools, and the Henderson Flood Control Board to incorporate their feedback regarding the design modifications resulting in Central Alternative 1B Modified (Selected). Additionally, KYTC presented the I-69 ORX project to the Henderson City-County Planning Commission on January 26, 2021.

Additionally, the Indiana Safe and Accessible Streets workgroup met on June 10, 2021. Attendees from INDOT, Indiana Department of Natural Resources (IDNR), Indiana Destination Development Corporation, Bicycle Indiana, and Health by Design as well as the project team. The purpose of this meeting was to discuss the project's approach to bicycle and pedestrian facilities, including the design and impacts of project alternatives and local and regional long-range plans for connectivity, as well as successful examples and/or best practices from other cities for partnering for additional accommodation.

Full details of these agency coordination efforts are provided in [Chapter 8, Section 8.2.3](#).

ES.5 COMPARISON OF ALTERNATIVE IMPACTS AND IDENTIFICATION OF THE SELECTED ALTERNATIVE

Table ES.5-1 summarizes and compares the impacts and costs for each alternative. The purpose of this analysis was to identify the most notable differences between the alternatives and to determine which would have the greatest and least impacts and costs. All of the alternatives except the No Build Alternative would meet the project's purpose and need.

ES.5.1 NO BUILD ALTERNATIVE

The No Build Alternative would not result in any impacts to natural, socioeconomic, or cultural resources. It would retain both historic US 41 bridges but the 35-year roadway and bridge operation and maintenance costs of \$270 million would be higher than all of the build alternatives. However, this alternative would not improve traffic congestion, safety, or provide cross-river system linkage for the National I-69 Corridor. As a result, it would not meet the project's purpose and need.

Table ES.5-1. Summary of Impacts

IMPACT CATEGORY	WEST ALTERNATIVE 1	WEST ALTERNATIVE 2		CENTRAL ALTERNATIVES 1A AND 1B (PREFERRED)		CENTRAL ALTERNATIVE 1B MODIFIED (SELECTED)	NO BUILD ALTERNATIVE
SOCIOECONOMIC							
Relocations							
Residential (units)	242	96		3		2	0
Commercial (units)	25	62		0		0	0
Farm Building	1	1		0		0	0
Places of Worship	1	1		0		0	0
Total Relocations	269	160		3		2	0
New Right-of-way (acres)	333	298		420		631	0
Will Tolling or Traffic Impacts Likely Cause EJ Disproportionate and Adverse Effects? ¹	With US 41 Bridge Tolls	Without US 41 Bridge Tolls	All Cross-River Traffic is Tolled	1A – With US 41 Bridge Tolls	1B – Without US 41 Bridge Tolls	Without US 41 Bridge Tolls	No Cross-River Traffic is Tolled
	Yes	No	Yes	Yes	No	No	No
Noise (number of receptors)	167	180	140	257	149	185	NA
Managed Lands (number/acres)	1/4.9	2/10.8		1/1.3		1/1.3	0
Aboveground Historic Resources	2	2		4		4	0
Section 4(f) Use							
Public Parks, Recreation Areas, and Wildlife/ Waterfowl Refuges	2	2		0		0	0
Historic Property	1	2		1		1	0
Recognized Environmental Condition (REC) Sites	14	22		5		7	0
Prime and Unique Farmland and Farmland of Statewide Importance (acres)	84.9	46.2		360.8		539.7	0
Farmland (acres)	182.6	168.9		398.5		605.5	0
NATURAL RESOURCES							
Wetlands (number/acres)	18/55.4	17/35.1		15/18.7		24/18.5	0

IMPACT CATEGORY	WEST ALTERNATIVE 1	WEST ALTERNATIVE 2	CENTRAL ALTERNATIVES 1A AND 1B (PREFERRED)	CENTRAL ALTERNATIVE 1B MODIFIED (SELECTED)	NO BUILD ALTERNATIVE
Streams (number/linear feet)					
Perennial	5/1,799	5/1,556	4/1,626	5/1,439	0
Intermittent	3/790	2/511	10/5,104	12/10,234	0
Ephemeral	39/20,886	37/19,085	42/13,206	52/20,238	0
Total	47/23,475	44/21,152	56/19,936	69/31,911	0
Open Water (number/acres)	6/9.6	3/2.8	1/12.7	1/6.3	0
Wellhead Protection Areas	2	2	0	0	0
Floodplain (acres)	105	89	190	313 ⁴	0
Floodway (acres)	149	120	88	127 ⁴	0
Forested Habitat	96.8	71.2	45.8	58.0	0
DESIGN/COSTS					
Length (miles)					
New Interstate	8.2	8.1	8.4	8.7	0
Existing US 41	2.9	2.9	2.8	2.8	0
Total	11.1	11.0	11.2	11.5	0
Cost (in millions, year of expenditure)					
Design, Approvals, Right of Way, Mitigation, Procurement, Construction Inspection ²	\$312	\$352	\$200	\$236	\$17
Construction	\$1,245	\$1,221	\$1,062	\$994-\$1,039 ⁵	\$0
Roadway/Bridge Operations and Maintenance (35 years)	\$252 ³	\$107	\$234 ³	\$214 ³	\$293
Total	\$1,810	\$1,680	\$1,497	\$1,444 - \$1489 ⁵	\$310
Potential Toll Revenue (in millions, year of collection)	\$1,100 – \$2,900	\$2,600	\$1,200 (1A) – \$2,600 (1B)	\$1,900	\$0

¹ Comparing traffic volumes and LOS under each of the build alternatives and with both tolling scenarios, all the alternatives would reduce traffic volumes and improve LOS on US 41 as compared with the No Build alternative, even with the removal of one or both of the US 41 bridges. Therefore, the EJ analysis did not identify any disproportionately high and adverse traffic related impacts to EJ populations.

² Each of the alternatives, including the No Build Alternative, includes costs associated with the completion of the NEPA process.

³ Includes the remaining US 41 bridge.

⁴ The proposed stormwater detention basins associated with Central Alternative 1B Modified (Selected) would have beneficial impacts by reducing downstream flooding in Henderson.

⁵ The cost range for Central Alternative 1B Modified is based on the results of the FHWA Cost Estimate Review (see Appendix Q-2).

ES.5.2 WEST ALTERNATIVE 1

Because West Alternative 1 would traverse residential neighborhoods west of and parallel to the US 41 commercial strip in Henderson, it would result in the highest number of residential relocations (242), compared to the number of relocations under West Alternative 2 (96) and Central Alternatives 1A and 1B (Preferred) (three) and 1B Modified (Selected) (two). With the addition of the commercial and places of worship relocations (27), it would also result in the highest number of total relocations (269). As with each of the build alternatives, West Alternative 1 would include tolls on the new I-69 crossing. When comparing alternatives without US 41 tolls, West Alternative 1 would impact more noise receptors (180) than Central Alternative 1B (149) but less than Central Alternative 1B Modified (Selected) (185). It would also impact more noise receptors than West Alternative 2 (140). Because the alternative would avoid most of the US 41 commercial strip, it would result in less than half of the commercial relocations compared to West Alternative 2 (62).

This alternative would result in the greatest impacts to wetlands (55.4 acres) floodways (149 acres), and forested habitat (96.8 acres), which would correlate to the highest impacts to potential habitat for the federally endangered Indiana bat and federally threatened northern long-eared bat. The Section 4(f) impacts would include removal of the historic southbound US 41 bridges, a *de minimis* impact to Atkinson Park associated with a drainage easement, and the permanent use of 35.7 acres of the Green River National Wildlife Refuge (NWR).

In the absence of mitigation, the option of tolls on the US 41 bridge would likely result in disproportionately high and adverse effects to environmental justice (EJ) populations, while the option without tolls on the US 41 bridge would not result in disproportionately and adverse effects and would provide a toll-free option for local cross-river traffic. Because the alternative would retain the northbound US 41 bridge in addition to providing a new I-69 bridge, it would provide cross-river route redundancy for the region.

West Alternative 1 would have the highest cost of the build alternatives at \$1,810 million, which is \$130 million more than West Alternative 2, \$313 million more than Central Alternative 1A and 1B (Preferred), and \$321 to \$366 million more than Central alternative 1B Modified (Selected). Without tolls on the US 41 bridge, the 35-year net toll revenue (year of collection dollars, less tolling operations and administration costs) is estimated at \$1.1 billion; with tolls on the US 41 bridge, net toll revenue is estimated at \$2.9 billion.

ES.5.3 WEST ALTERNATIVE 2

West Alternative 2 would traverse the west side of the US 41 commercial strip and result in the highest number of commercial relocations (62). Due to the alternative's impacts to commercial development, it would correspondingly impact the highest number of sites (22) with recognized environmental conditions (RECs). It would also have the second highest number of residential relocations (96) and total relocations (160). Because the alternative would utilize most of the existing US 41 right-of-way, it would require the least amount of new right-of-way (298 acres).

As with each of the build alternatives, West Alternative 2 would include tolls on the new I-69 crossing. West Alternative 2 would remove both US 41 bridges and, therefore, would not provide

a toll-free river crossing option. As a result, in the absence of mitigation, it would likely have a disproportionately high and adverse effect on EJ populations.

In addition, because the alternative would only include one new I-69 bridge, it would not provide cross-river route redundancy for the region. The Section 4(f) impacts would consist of the removal of both historic US 41 bridges, a *de minimis* impact to Atkinson Park associated with a drainage easement, and the permanent use of 32.1 acres of the Green River NWR. As for managed lands, West Alternative 2 would result in the greatest impacts with two sites totaling 10.8 acres.

This alternative would result in the least impact to prime and unique farmland and farmland of statewide importance (46.2 acres), farmland (168.9 acres), linear feet of intermittent (511 feet) streams, floodplains (89 acres), and noise receptors (140). Impacts to forested habitat would be 71.2 acres, which is more than Central Alternatives 1A and 1B (Preferred) (45.8 acres) and 1B Modified (Selected) (58.0 acres) but less than West Alternative 1 (96.8 acres).

Because the alternative would remove both US 41 bridges and shift all traffic over to the new I-69 bridge, it is anticipated that it would improve cross-river safety more than other build alternatives.

The alternative's cost at \$1,680 million would be \$130 million less than West Alternative 1 but \$183 million more than Central Alternatives 1A and 1B (Preferred) and \$191 to \$236 million more than Central Alternative 1B Modified (Selected). The 35-year net toll revenue (year of collection dollars, less tolling operations and administration costs) is estimated at \$2.6 billion.

ES.5.4 CENTRAL ALTERNATIVES 1A AND 1B (PREFERRED)

Central Alternatives 1A and 1B (Preferred) would have the second fewest residential relocations (three) and no commercial relocations. As a result, they would have the second fewest total relocations (three), which is less than West Alternative 1 (269) or West Alternative 2 (160) but only one more than Central Alternative 1B Modified (Selected) (two). These alternatives also impact the fewest sites with RECs (five).

Because most of these alternatives cross new terrain and undeveloped farmland, they would require the second greatest amount of new right-of-way (420 acres) and have the second greatest impact to prime and unique farmland and farmland of statewide importance (360.8 acres) and farmland (398.5 acres) compared to the other build alternatives. They would also have the second greatest impacts to floodplains (190 acres). However, both alternatives would have the second least impact to wetlands (18.7 acres), and the least impacts to streams (19,936 linear feet), managed lands (1.3 acres) (along with Central Alternative 1B Modified [Selected]), floodways (88 acres), and forested habitat (45.8 acres), which correlates to the least impact to potential habitat for the federally endangered Indiana bat and federally threatened northern long-eared bat. The only Section 4(f) impact would be the removal of the historic southbound US 41 bridge.

As with each of the build alternatives, Central Alternatives 1A and 1B (Preferred) would include tolls on the new I-69 crossing. Similar to West Alternative 1, in the absence of mitigation, Central Alternative 1A, which would include tolls on the US 41 bridge, would likely result in disproportionately high and adverse effects to EJ populations, while Central Alternatives 1B and

1B Modified, which would not toll the US 41 bridge would not result in disproportionately high or adverse effects. Central Alternative 1A, with tolls on the US 41 bridge, would also impact the highest number of noise receptors (257).

Because both Central Alternatives 1A and 1B (Preferred) would retain the northbound US 41 bridge, they would provide cross-river route redundancy for the region. Central Alternatives 1A and 1B (Preferred) would shift through traffic farther away from the existing US 41 commercial strip than West Alternatives 1 and 2, thereby resulting in potentially greater economic impacts to businesses that depend on through traffic.

These alternatives would have the second lowest cost of the four build alternatives at \$1,497 million, which is \$313 million and \$183 million less than West Alternatives 1 and 2, respectively, but \$8 to \$53 million more than Central Alternative 1B Modified (Selected). With Central Alternative 1B, without tolls on the US 41 bridge, the 35-year toll revenue (year of collection dollars) is estimated at \$1.2 billion; for Central Alternative 1A, which would toll the US 41 bridge, the 35-year toll revenue is estimated at \$2.6 billion.

ES.5.5 CENTRAL ALTERNATIVE 1B MODIFIED (SELECTED)

Central Alternative 1B Modified (Selected) would have the fewest residential relocations (two) and no commercial relocations. This alternative would also impact the second fewest sites with RECs (seven).

Because most of the alternative crosses new terrain and undeveloped farmland, it would require the greatest amount of new right-of-way (631 acres) and have the greatest impact to farmland (605.5 acres), along with prime farmland, unique farmland, and farmland of statewide importance (539.7 acres). It would also have the greatest impacts to floodplains (313 acres), intermittent streams (10,234 linear feet), and total streams (31,911 linear feet). Although it would have the greatest total impacts to streams, most of these impacts are to ephemeral streams (20,238 linear feet), which comprises approximately 63 percent of the total stream impacts. It would have the second greatest impacts to noise receptors (185). However, the alternative would have the least impacts to wetlands (18.5 acres), perennial streams (1,439 linear feet), managed lands (1.3 acres) (along with Central Alternatives 1A and 1B [Preferred]), and the second fewest impacts to forested habitat (58.0 acres), which correlates to the least impact to potential habitat for the federally endangered Indiana bat and federally threatened northern long-eared bat. The only Section 4(f) impact would be the removal of the historic southbound US 41 bridge. Note that Central Alternative 1B Modified (Selected) would require more right-of-way and result in greater impacts to farmlands, floodplains, and floodways than Central Alternatives 1A and 1B (Preferred) primarily due to the inclusion of stormwater detention basins (i.e., approximately 200 acres) that were developed during the design modification process to reduce downstream flooding.

As with each of the build alternatives, Central Alternative 1B Modified (Selected) would include tolls on the new I-69 crossing. However, Central Alternative 1B Modified (Selected) would not toll the US 41 bridge, which provides a toll-free option for low-income users and, therefore, would not result in disproportionately high and adverse effects to EJ populations.

Because Central Alternative 1B Modified (Selected) would retain the northbound US 41 bridge, it would provide cross-river route redundancy for the region. It would shift through traffic farther away from the existing US 41 commercial strip than West Alternatives 1 and 2, thereby resulting in potentially greater economic impacts to businesses that depend on through traffic.

The alternative would have the lowest cost of the four alternatives at \$1,444 to \$1,489 million, which is \$321 to \$366 million, \$191 to \$236 million, and \$8 to \$53 million less than West Alternative 1, West Alternative 2, and Central Alternatives 1A and 1B (Preferred), respectively. For this alternative, the 35-year toll revenue (year of collection dollars) is estimated at \$1.9 billion.

ES.5.6 IDENTIFICATION OF THE SELECTED ALTERNATIVE

Based on: 1) the comparison of the alternatives' impacts and costs; 2) public and agency comments received during the DEIS public hearings and 56-day comment period; and 3) public and agency comments received during the virtual public meeting and 15-day comment period on the identification of Central Alternative 1B Modified as the Single Preferred Alternative, Central Alternative 1B Modified, which retains the northbound US 41 bridge, has been identified as the Selected Alternative for the following reasons.

- Fewest residential relocations
- No commercial relocations
- Fewest impacts to the following resources:
 - Wetlands
 - Perennial streams
 - Managed lands (Same as Central Alternatives 1A and 1B)
 - Section 4(f) resources (i.e., the historic southbound US 41 bridge) (Same as Central Alternatives 1A and 1B)
- Second fewest impacts to the following resources:
 - Forested habitat and potential habitat for the federally endangered Indiana bat and federally threatened northern long-eared bat
 - Sites with RECs
- Cross-river route redundancy for the region that provides acceptable cross-river capacity for future traffic demands in a fiscally responsible manner
- Reduced economic impacts to businesses along the US 41 commercial strip and to local users that regularly cross the Ohio River by keeping the US 41 bridge toll free
- The majority of the public comments preferred no tolls on the US 41 bridge and providing a toll-free option would avoid disproportionately high and adverse impacts to environmental justice populations
- Lowest total cost

An initial financial plan will be developed based on the total cost of the project, the amount of money each state can contribute from traditional sources, the potential for receiving national grants or other awards, and the amount of remaining funding need to be filled by tolls.

The total costs for this project are significant when compared with the statewide program and require other funding sources to make the project financially feasible. For example, for Central Alternative 1B Modified (Selected), the \$1.9 billion in revenue has an approximate \$400 million in financing capacity toward project development and construction costs, leaving an approximate \$850 million gap needed from the states' traditional programs through direct funding and/or other financing. The type of procurement and project financing has not been determined, nor has the tolling policy, all of which would affect the net amount of toll revenue that could be used to offset project costs. After deducting for financing, tolling operations and administration costs, all of which could be considerable when compared with total revenue, all of the net toll revenues remaining would be used to cover construction costs.

ES.6 MITIGATION AND COMMITMENTS

Table ES.6-1 provides a general summary of the mitigation measures and environmental commitments that will be applied to unavoidable impacts associated with Central Alternative 1B Modified (Selected). A more detailed discussion of mitigation is presented in **Chapter 7** and the ROD. Throughout the NEPA process, efforts were made to avoid resources. Agency and public input further identified ways to avoid, minimize, and mitigate impacts.

Table ES.6-1. Summary of Mitigation and Commitments

CATEGORY	MITIGATION AND COMMITMENT SUMMARY
Transportation	<p>A Traffic Management Plan will be developed for the project in coordination with local government officials, emergency service providers, and schools.</p> <p>The proposed design will accommodate pedestrian and bicycle access by maintaining or reestablishing connectivity for non-motorized users.</p> <p>Final concurrence from the United States Coast Guard to determine how river navigation can be least impacted with the construction of the new bridges over the Ohio River would occur after final design of the project.</p> <p>The existing southbound US 41 bridge will remain operational (exclusive of maintenance and/or repair activities) until the new I-69 bridge is opened to traffic.</p>
Acquisitions and Relocations	<p>Acquisitions and relocations will be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended, 49 CFR Part 24, and Title VI of the Civil Rights Act of 1964.</p> <p>The project team will ensure fair and equitable treatment of persons displaced up to and including providing replacement housing of last resort as defined in 49 CFR §24.404.</p>
Environmental Justice/Title VI	<p>To ensure equitable access, INDOT and KYTC are committed to engaging with the environmental justice community in advance of implementation of the tolling program. INDOT and KYTC's engagement will include education for low-income populations about the tolling program and will ensure that transponders and accounts are accessible to all members of the community.</p> <p>INDOT and KYTC will continue to coordinate with transit agencies to ensure that implementation of the project does not impede potential cross-river express service in conjunction with the Henderson Area Rapid Transit (HART).</p>

CATEGORY	MITIGATION AND COMMITMENT SUMMARY
Visual	<p>Techniques to mitigate visual impacts from the new interstate may include:</p> <ul style="list-style-type: none"> • sound walls that limit noise and visibility of the interstate • fences between the interstate and adjacent land use areas to increase physical and visual perceptions of safety • public art at key locations • vegetation buffer with shade trees, ornamental trees, shrubs, and perennials between the interstate and adjacent land use areas <p>For bridges, techniques may include:</p> <ul style="list-style-type: none"> • lighting • structural elements • wayfinding • functional treatments. <p>These techniques will be evaluated using stakeholder and public input to minimize visual impacts and enhance the esthetics of the project.</p> <p>At the KY 351 interchange, streetscaping will be provided in support of the City of Henderson's vision for this gateway corridor.</p>
Noise	<p>A final determination on the locations of noise barriers will be made during final design. During final design, shifting the roadway alignment vertically and/or horizontally will be considered, where feasible, to minimize noise impacts where other factors are not prohibitive.</p> <p>Construction vehicles will be required to follow INDOT and KYTC standard specifications on controlling noise. This may involve shielding of equipment with acoustic barriers, restricting certain types of work to specific hours of the day, requiring source control on equipment (mufflers) or other measures to reduce noise impacts.</p>
Streams and Other Surface Waters	<p><i>STREAM AVOIDANCE AND MINIMIZATION</i></p> <p>Continued efforts will be made during final design to identify design features that minimize impacts at stream crossings, including measures to keep channel and bank modifications to a minimum and, where feasible, avoid channel alterations below the ordinary high water mark elevation.</p> <p><i>STREAM MITIGATION AND RELOCATIONS</i></p> <p>Stream mitigation will be provided in coordination with regulatory agencies during the permitting process. Stream mitigation ratios will be determined in consultation with Indiana Department of Environmental Management (IDEM), KYTC, and USACE and mitigation and monitoring plans will be developed as appropriate. The potential to use mitigation banks or state in-lieu fee programs will be explored. Where practicable, stream relocations will follow the natural stream channel design standards. Streams within the right-of-way that can accommodate tree or shrub plantings to minimize the impacts of thermal inputs will be identified during final design and, where feasible, the outside edge of these streams will be positioned adjacent to existing forested areas.</p> <p><i>OUTSTANDING STATE RESOURCE WATER (OSRW)</i></p> <p>Further coordination with Kentucky Department for Environmental Protection (KDEP) will occur to ensure that the water quality and aquatic habitat in the portion of the Ohio River that is designated as an OSRW will be maintained.</p> <p><i>EROSION CONTROL AND STORMWATER POLLUTION PREVENTION</i></p> <p>A Stormwater Pollution Prevention Plan (SWPPP) and best management practices (BMPs) will be developed and approved by INDOT, KYTC, IDEM, and KDEP prior to construction. Erosion and sediment controls will include the use of measures that will avoid and minimize impacts to aquatic resources.</p> <p><i>FLOODWAYS/FLOODPLAINS</i></p> <p>A hydraulic design study that addresses structure size and type will be conducted during final design to ensure that flood elevations are not affected.</p>

CATEGORY	MITIGATION AND COMMITMENT SUMMARY
Wetlands	<p>During final design, measures to avoid or minimize wetlands impacts will continue to be evaluated. For wetland impacts that cannot be avoided, mitigation measures may include mitigation banks, in-lieu fee programs, and permittee responsible improvements to existing water resources and natural habitat. The acreage needed for wetland mitigation is determined based on the expected acreage of impacts, type of wetland, and jurisdiction using mitigation ratios. USACE typically requires the following mitigation ratios:</p> <ul style="list-style-type: none"> • Farmed wetland: 1:1 • Scrub/shrub and palustrine/lacustrine emergent wetland: 2:1 to 3:1 • Bottomland hardwood forest: 3:1 to 4:1 • Exceptional, unique, critical wetland (e.g., cypress swamp): 4:1 or greater <p>Impacted wetlands will be replaced at the appropriate mitigation ratio. After the completion of construction, wetland areas within the project area will be allowed to revegetate naturally or, if needed, reseeded with native wetland species.</p>
Non-Wetland Forested Floodplain	<p>In Indiana, trees removed within a non-wetland forested floodway/floodplain will be replaced in accordance with INDR's Construction in a Floodway Permit guidelines.</p>
Threatened and Endangered Species	<p><i>Mussels</i></p> <ul style="list-style-type: none"> • FHWA has committed to the following eleven conservation measures specific to mussels in the Biological Opinion for the project: Erosion and sediment controls, including a SWPPP to be developed and approved by INDOT, KYTC, IDEM, and KDEP prior to construction, and implementation of BMPs prior to, and throughout, construction, such as temporary seeding and mulch to stabilize disturbed areas. • Equipment Maintenance, Cleaning, Fueling, and Monitoring Plan (EMCFM Plan), developed to prevent equipment-related impacts from reaching waterways, including: locations of staging, refueling, and clean-up areas; fuel storage areas; implementation of BMPs to minimize the potential for fuel spills and contamination; and requirement of a spill response plan • Catch barges for US 41 roadway removal, designed to minimize and avoid impacts to waterways and mussel habitat to the greatest extent practicable. • Demolition and recovery of the US 41 bridge, designed to minimize impacts to the surrounding aquatic environment. • US 41 pier removal, including use of barge work platforms to limit material falling into the Ohio River or use of a floating turbidity curtain to limit downstream sedimentation. • Upland storage of bridge materials, to be located away from the normal water line. • Barge spud locations, limiting barges and other boat traffic to isolate Ohio River substrate impacts to a smaller footprint. • Concrete pouring, to properly install piers while avoiding spills into the Ohio River by using incased drilled shafts, precast waterline footing platforms, or in the dry with caissons or cofferdams. • Environmentally sensitive area minimization procedures, to avoid and/or minimize construction in areas of high environmental quality, including the mussel habitat, to the greatest extent possible. • Revegetation of riparian areas and limited use of riprap, as described in Section 7.6.1, as well as designing plans to include the planting of native woody and herbaceous vegetation to stabilize stream banks except for areas under bridges.

CATEGORY	MITIGATION AND COMMITMENT SUMMARY
	<ul style="list-style-type: none"> Contribution to mussel propagation, to support recovery efforts for the Fat Pocketbook, Sheepnose, and/or Longsolid at a permitted mussel propagation facility, for a total contribution of \$32,601.00 for the project. <p><i>Bats</i></p> <p>The potential construction impacts to the Indiana bat and northern long-eared bat summer habitat will be addressed through the KYTC <i>Programmatic Conservation Memorandum of Agreement for the Indiana bat</i>, which will dictate mitigation required for construction impacts. USFWS confirmed that the programmatic agreement will be applied in both states, with the exception that Indiana tree clearing restrictions will be followed within Indiana. In Indiana, tree clearing for trees having a 3 inch or greater DBH will not be allowed between April 1 and September 30.</p> <p>Erosion and sediment control measures proposed for the project, such as numerous water quality protective measures to avoid and minimize impacts to aquatic resources, will help prevent negative impacts to the gray bat and Indiana bat that forage on aquatic insects.</p> <p>To reduce potential for future take of roosting Indiana, northern long-eared, and gray bats using highway structures (bridges and overpasses), all of the structures within the project corridor will be checked again, since construction will occur more than two years from when the initial survey was completed (August 12, 2018). Prior to construction, all existing bridges that will be removed between May 15 and August 15 will be surveyed for the presence of endangered or threatened bats.</p> <p><i>Least Tern</i></p> <p>Future surveys will be completed for nesting least terns if low water allows for suitable habitat to become available within the project corridor.</p>
Cultural Resources: Historic Properties	<p>To resolve the adverse effects on historic properties listed or eligible for listing on the National Register of Historic Places (NRHP), consultation with the property owners and consulting parties has been undertaken and a Section 106 Memorandum of Agreement (MOA) has been executed, which includes the following stipulations:</p> <ul style="list-style-type: none"> Documentation of two historic contexts: Agriculture in Henderson County from 1798 to 1870, and Slavery, Segregation and the Ascent of the African American Community in Henderson County 1798 to 1965 Preservation of historic district(s) in Downtown Henderson: \$50,000 of funding provided by FHWA and KYTC to benefit one or more of the districts Statewide Truss Bridge Survey and Management Plan, to be completed within 24 months of the execution of the MOA <p>INDOT and KYTC shall carry out additional marketing efforts to identify a reuse opportunity for the existing southbound US 41 bridge. Not more than 2 years prior to the letting of a contract to construct the new I-69 Ohio River bridge or to demolish the existing southbound US 41 bridge, INDOT and KYTC shall:</p> <ul style="list-style-type: none"> Perform outreach to local city and county jurisdictions in both Indiana and Kentucky to determine their interest in taking ownership responsibility for the bridge. Post the availability of the structure on INDOT's Bridge Marketing website for a minimum of 6 months. Broadly publicize the availability of the structure through media releases and outreach to local historic preservation, bicycle, pedestrian, and disabled persons mobility advocacy organizations. Adhere to any INDOT and KYTC bridge marketing policies in place at the time the marketing effort is initiated.

CATEGORY	MITIGATION AND COMMITMENT SUMMARY
Cultural Resources: Archaeological Resources	The Section 106 MOA stipulates the identification and evaluation efforts as well as any additional testing that should occur, should resolution of adverse effects to archaeological resources be required. If a NRHP-eligible archaeological site is located, and direct effects to the property cannot be avoided, the MOA stipulates mitigation procedures.
Groundwater and Hazardous Materials	<p><i>Groundwater Protection Plan</i></p> <p>Prior to construction, a Groundwater Protection Plan complying with 401 KAR 5:037 <i>Groundwater Protection Plans</i> will be developed (Indiana lacks a similar rule). The plan will establish a series of practices to protect groundwater during demolition and construction. Activities such as well and septic plugging, equipment storage, spill response, precautions for wellhead protection areas, and BMPs will be covered by the plan.</p> <p><i>Contaminated Soil, Groundwater, and/or Underground Storage Tanks</i></p> <p>During final design, an updated Phase I ESA will be completed. Registered underground storage tank (UST) sites will be assessed and closed in accordance with state UST closure guidelines and sampling requirements.</p> <p><i>Spill Plan</i></p> <p>A spill response plan that is acceptable to INDOT, KYTC, IDEM, and KDEP will be required for the project.</p>
Indirect and Cumulative Effects	The potential indirect and cumulative effects to sensitive resources within the study areas of the US 60 and US 41 interchanges can be minimized by local, state, and federal regulations that are intended to manage growth and protect resources.
Migratory Birds	Bridges will be surveyed between May 7 and September 7 for the presence of migratory birds or nests prior to construction activities, including demolition of the southbound US 41 bridge.
Wildlife Passage	<p>During final design, the states will evaluate the potential and value of including one or more wildlife crossings, particularly cost-effective solutions above flood elevations. In Kentucky, a wildlife passage will be evaluated near the southern limits of the Ohio River floodplain.</p> <p>During final design, the states will evaluate the potential and value of including an embedded box culvert as a wildlife crossing in stream crossings where practicable. Articulated concrete block mats, fabric-formed concrete mats, or other similar smooth-surfaced materials that will not impair wildlife movement will be considered for stream crossings with defined banks during final design.</p>
Air Quality	During final design and construction, the states will incorporate air quality control BMPs to the maximum extent practicable and comply with local air quality regulations:
Green River National Wildlife Refuge	<p>INDOT and KYTC will continue to coordinate with USFWS regarding establishment of and access to refuge facilities, including vehicle access, proposed grade-separated pedestrian access, and appropriate signage for access.</p> <p>All existing public roads in the area of the refuge will be maintained.</p>
Final Design	Efforts to further minimize potential impacts, improve traffic performance, and reduce costs will occur during final design. FHWA, INDOT, and KYTC will review any design modifications during final design to determine the need for a re-evaluation or a supplemental NEPA document in accordance with 23 CFR 771.129 and 771.130.

ES.7 AREAS OF CONTROVERSY

Based on input from the public, the most notable areas of controversy for the project were the high numbers of residential and business property impacts with West Alternatives 1 and 2, the potential lack of a toll-free bridge for local residents and businesses that regularly cross the river, and the removal of one or both of the US 41 bridges. Central Alternative 1B Modified (Selected) reduces economic impacts to traffic-dependent businesses along the US 41 commercial strip, avoids residential impacts in that area, and provides local users that regularly cross the Ohio River a toll-free option.

Central Alternative 1B Modified (Selected) would remove the southbound US 41 bridge and convert the northbound US 41 bridge to a two-way bridge for local traffic, toll-free. INDOT and KYTC have determined that maintaining both bridges for non-vehicular use is not financially feasible. Removal of one of the US 41 bridges would avoid nearly \$130 M of long-term operation and maintenance costs while providing sufficient traffic capacity for current and future traffic. These cost savings would translate directly into reduced long-term operations and maintenance costs, which would reduce long term financing costs and increase the proportion of toll revenues that could be used to offset project development and construction costs.

Coordination with local government agencies will continue to determine if any are willing to assume ownership of the southbound US 41 bridge. INDOT and KYTC will carry out additional marketing efforts to identify a reuse opportunity for the existing southbound US 41 bridge and in accordance with the stipulations set forth in the executed Section 106 Memorandum of Agreement (MOA) ([Appendix L-3](#)). If, after unsuccessful marketing and completion of documentation of the southbound US 41 bridge per the Section 106 MOA, FHWA and KYTC may demolish the bridge following completion of the new I-69 bridge.

ES.8 ISSUES TO BE RESOLVED

There are no outstanding issues to be resolved. The identification and evaluation of Central Alternative 1B Modified (Selected) has been completed in this FEIS and the accompanying ROD, which concludes the NEPA process for the project.