

SEPTEMBER 2021



FINAL ENVIRONMENTAL IMPACT STATEMENT RECORD OF DECISION

I-69 OHIO RIVER CROSSING PROJECT
Evansville, IN and Henderson, KY



RECORD OF DECISION

This document is the Federal Highway Administration's (FHWA) Record of Decision (ROD) for the I-69 Ohio River Crossing (ORX) project for a new interstate across the Ohio River that would connect the southern terminus of I-69 in Evansville, Indiana with the northern terminus of I-69 in Henderson, Kentucky. This ROD is the decision document that concludes the National Environmental Policy Act (NEPA) process for the project.

This ROD was prepared in accordance with 40 CFR 1505.2 and FHWA Technical Advisory T 6640.8A. This ROD was prepared concurrently with the I-69 ORX Final Environmental Impact Statement (FEIS) in accordance with 23 U.S.C. 139(n)(2), 49 U.S.C. 304a(b), and the U.S. Department of Transportation *Guidance on the Use of Combined Final Environmental Impact Statements/Records of Decision and Errata Sheets in National Environmental Policy Act Reviews* (April 25, 2019), which provide that the FEIS and ROD should be combined unless “(1) the FEIS makes substantial changes to the proposed action that are relevant to environmental or safety concerns; or (2) there are significant new circumstances or information relevant to environmental concerns that bear on the proposed action or the impacts of the proposed action.”

Changes were made in the FEIS to refine the Draft Environmental Impact Statement (DEIS) Preferred Alternatives based on public and agency input, value engineering studies, and additional technical analyses, which resulted in the development and identification of Central Alternative 1B Modified as the Selected Alternative, as documented in this ROD. These changes, as summarized in Section 2.3.3 of this ROD and documented in Chapter 3, Section 3.4 of the FEIS, serve to improve the operation of the design, reduce cost and/or schedule, and accommodate updated plans for future growth, while still meeting the project's purpose and need and minimizing impacts.

The termini, general alignment, and function of the Selected Alternative remain the same as the DEIS Preferred Alternatives (Central Alternatives 1A and 1B). The changes generally include design modifications to interchanges, narrowing the width of the I-69 bridge of the Ohio River, adding an auxiliary lane, the removal of a local access bridge over I-69 and the associated extension of another local road to maintain access, and the addition of stormwater detention basins. These modifications are not considered significant in the context of combining the FEIS and the ROD and no significant new circumstances or information have become known since the DEIS was published. Other factors that were considered when making the determination to combine the FEIS and ROD included the following:

1. There are no coordination activities that would be more effectively completed after the FEIS is available.
2. There are no unresolved interagency disagreements over issues that need identification in the FEIS.
3. There is no substantial degree of controversy.

4. The DEIS identified Preferred Alternatives among comparatively evaluated reasonable alternatives.
5. There are no compliance issues with substantive requirements that must be resolved before issuance of the ROD, or that FHWA wants to resolve before signing the ROD.

Therefore, it is appropriate for this project that this ROD has been completed and approved at the same time as the FEIS.

1.0 DECISION

The proposed action for the I-69 ORX project is to provide 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. Central Alternative 1B Modified has been identified as the Selected Alternative. This decision is based on: 1) an evaluation of the information presented in the DEIS issued in December 2018; 2) consideration of public and agency comments throughout the NEPA process; 3) value engineering that was conducted following the DEIS which resulted in design modifications to reduce costs and improve operations of Central Alternative 1B; and 4) the results of additional environmental studies and evaluations of the design modifications that are presented in the FEIS, which is issued concurrently with this ROD. Additional basis for this decision is contained in the remainder of this ROD and supported by the attached FEIS.

1.1 SELECTED ALTERNATIVE (CENTRAL ALTERNATIVE 1B MODIFIED)

This ROD for the I-69 ORX project approves the features of the Selected Alternative (Figure 1-1), which meet the project's purpose and need and represents the environmentally preferred alternative. The Selected Alternative includes 11.5 miles of new interstate, including 8.7 miles on new terrain (with three new interchanges) and 2.8 miles of upgrades to US 41 (with improvements to three existing interchanges).

From north to south, the Selected Alternative begins at existing I-69 in Indiana, approximately 1 mile east of the existing US 41/Veterans Memorial Parkway interchange. A new interchange with existing I-69 would be constructed and I-69 would become the through movement. The interchange would accommodate access to existing US 41 and Veterans Memorial Parkway to the west.

The Selected Alternative would provide a new, four-lane I-69 bridge approximately 7,600 feet long over the Ohio River and associated floodway that would be located approximately 1.5 miles east of the existing US 41 bridges. The northbound US 41 bridge would be retained and the southbound US 41 bridge would be removed following completion of the new I-69 bridge. Because the southbound US 41 bridge is a historic Section 4(f) resource, INDOT and KYTC will carry out additional marketing efforts to identify a reuse opportunity for the existing southbound US 41 bridge and the bridge will be also marketed prior to its demolition in accordance with the executed Section 106 Memorandum of Agreement for the project (Appendix L-3 of the FEIS). The northbound US 41 bridge would be converted from a one-way bridge to a two-way bridge for local traffic. There would be no changes to existing US 41 through the commercial strip of Henderson. The new I-69 bridge would be tolled and there would be no tolls on the remaining northbound US 41 bridge.



The Selected Alternative would continue south across the Ohio River just west of a gas transmission line near the Green River State Forest and east of the Green River National Wildlife Refuge, then turn southwest. The Selected Alternative would continue south to US 60 where a new service interchange would be provided. North of the US 60 interchange and east of and parallel to the alternative, Bowling Lane would be extended, along with a driveway, to maintain local access. As part of the US 60 interchange, US 60 would be relocated approximately 400 feet south and require a new bridge over the CSX Railroad east of the interchange.

The Selected Alternative would continue southwest and connect with US 41 via a new service interchange approximately 1 mile south of the existing US 41/US 60 interchange. Between the US 60 and the US 41 interchanges, a stormwater detention basin would be located adjacent to and south of the alternative. As part of US 41 interchange, Kimsey Lane, which currently overpasses US 41 without access, would be relocated to maintain access across the alternative and provide an eastern connection to the US 41 interchange. The Merrill Way Trail, which is a shared-use path that extends from Kimsey Lane to Barret Boulevard east of US 41, would also be relocated and extended to maintain access to Kimsey Lane. See Appendix A-4, Sheet 14 of the FEIS for mapping of Kimsey Lane and the Merrill Way Trail.

South of its interchange with US 41 the existing interchange at KY 351 would be reconstructed to include roundabouts at the ramp intersections and at the KY 2084 intersection. The partial interchange at KY 2084 would be removed to meet interstate standards for interchange spacing. Finally, the northbound and southbound acceleration lanes at the Audubon Parkway would be extended and a northbound auxiliary lane would be added between the Audubon Parkway and the Henderson Bypass interchanges.

Outside of the bridge limits, the Selected Alternative would use a rural cross-section, including a depressed grass median. Appendix A-4 of the FEIS provides preliminary designs of the Selected Alternative. Following the FEIS and ROD and in accordance with FHWA Order 6640.1A, the preliminary designs will be progressed to final design, which will be implemented in two phases for this project as further described below.

1.2 PHASED CONSTRUCTION

In 2020, the Kentucky legislature adopted Kentucky's *FY 2020 – FY 2026 Highway Plan* that included funding for the first section of the I-69 ORX project. Section 1, which will be constructed first, includes all project work from KY 425 to US 60, 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 US 60, 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 until the completion of Section 2. The design of the Selected Alternative would accommodate this phased construction plan.

2.0 BASIS OF DECISION

Based on a balanced consideration of the need for safe and efficient transportation; the social, economic, and environmental effects of the project alternatives; and national, state, and local environmental protection goals and funding, the FHWA, Indiana Department of Transportation (INDOT), and the Kentucky Transportation Cabinet (KYTC) have identified Central Alternative 1B Modified as the Selected Alternative for the following reasons:

- It provides acceptable cross-river capacity for future traffic demands in a fiscally responsible manner.
- It reduces economic impacts to traffic-dependent 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 it would avoid disproportionately high and adverse effects to environmental justice populations.

The remainder of this section of the ROD further summarizes the key steps that led to identification of the Selected Alternative (Central Alternative 1B Modified). The basis of this decision was structured to balance performance, cost, and environmental impact and in consideration of public and agency opinion. This section draws from the information in the 2018 DEIS and 2021 FEIS, which include technical reports, memoranda, correspondence, and other supporting documents as appendices and references.

2.1 NEPA PROCESS

The FEIS for the I-69 ORX project was prepared by the FHWA, INDOT, and KYTC in accordance with the following:

- *National Environmental Policy Act (NEPA) of 1969*
- FHWA Technical Advisory T 6640.8A, *Guidance for Preparing and Processing Environmental and Section 4(f) Documents* (FHWA 1987)
- *Procedural Manual for Preparing Environmental Documents* (INDOT 2008)
- *Environmental Analysis Guidance Manual* (KYTC 2014b)
- 23 U.S.C 139(n)

The 2018 DEIS and 2021 FEIS document key milestone dates throughout the NEPA process. Of note, the FHWA, INDOT, and KYTC issued a revised¹ Notice of Intent (NOI) in the Federal Register on February 13, 2017 for the preparation of an EIS for the I-69 ORX project. In addition, the NOI provided background information on the project, including a summary of previous studies of the corridor, and explained the upcoming alternatives development, public involvement, and agency coordination processes. Following the revised NOI, early agency

¹ The February 13, 2017 NOI revised the original NOI that was issued for the project on May 10, 2001. Under the original NOI, a Draft Environmental Impact Statement (DEIS) was completed in 2004, but the project was subsequently suspended in 2005.

coordination was conducted via letters and an Interagency Advisory Committee (IAC) was formed to identify cooperating and participating agencies and to define the EIS scope, as documented in Chapter 8 of the FEIS. In addition, initial public and stakeholder meetings were held to present the project scope to the public and obtain their input.

The Notice of Availability (NOA) of the DEIS for public review was published in the Federal Register on December 14, 2018, including publication of the close of the comment period on February 8, 2019. The NOA of the combined FEIS/ROD will be published in the Federal Register, announcing the decision and the end of the NEPA process.

Public and agency coordination are integral aspects of the NEPA process. Details of the robust public involvement and agency coordination for the I-69 ORX project are provided in Chapter 8 of the FEIS. The FHWA, INDOT, and KYTC coordinated with three Cooperating Agencies that have jurisdiction by law or special expertise with respect to any potential environmental impacts involved with the project. These agencies included the U.S. Coast Guard (Eighth District), the U.S. Fish and Wildlife Service (USFWS) in both Indiana and Kentucky, and the U.S. Army Corps of Engineers (Louisville District). They also coordinated with numerous Participating Agencies (federal, state, and local agencies as well as Native America tribes) throughout the project via the Interagency Advisory Committee. Other committees for the I-69 ORX project included the River Cities Advisory Committee, the Environmental Justice Subcommittee, and Section 106 Consulting Parties. Additionally, the FHWA, INDOT, and KYTC provided information to the public early and continued to solicit public feedback throughout the NEPA process; see Section 2.4 of this ROD. Additional coordination that that occurred with agencies, elected officials, and local organizations regarding specific issues are detailed in Chapter 8, Section 8.2.3 of the FEIS.

2.2 PURPOSE AND NEED

Four primary needs were identified for the I-69 ORX 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

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

The purpose and needs of the project are defined in greater detail in Chapter 1 of the FEIS.

2.3 ALTERNATIVES

The Selected Alternative for the I-69 ORX project (Central Alternative 1B Modified) was defined through a series of steps involving the development, analysis, and screening of alternatives, which is summarized below and fully documented in Chapter 3 of the FEIS.

2.3.1 ALTERNATIVES CONSIDERED

Based on the I-69 ORX Project's purpose and need and on alternatives previously presented in the 2004 *Interstate 69 Henderson, Kentucky to Evansville, Indiana Draft Environmental Impact Statement* and the 2014 *I-69 Feasibility Study, Henderson, Kentucky, SIU #4, Final*, an initial range of five corridors was developed, evaluated, and screened using secondary source and preliminary survey data, and input from the public and federal, state, and local agencies. The five corridors – two west corridors, two central corridors, and an east corridor – were comparatively evaluated on the degree to which it met the purpose and need; its potential social, environmental, and economic impacts; and its conceptual cost. The identification of the range of alternatives and the alternatives screening process are documented in Chapter 3, Sections 3.1 and 3.2 and Appendices B-1 and B-2 of the FEIS. Additionally, two potential tolling² options were evaluated during the preliminary screening process: 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, for incorporation into any future build alternatives.

The screening process resulted in three of the five corridors being carried forward for more detailed evaluation in the 2018 DEIS: West Corridor 1, West Corridor 2, and Central Corridor 1. The East Corridor was not recommended for further evaluation because it would result in high potential environmental impacts and had the highest construction and operation costs. Similarly, the Central Corridor 2 was not recommended because of its operations cost and potential environmental impact.

2.3.2 NO BUILD ALTERNATIVE

The No Build Alternative represents the conditions that would exist, if the project is not implemented, in the project planning year of 2045. The No Build Alternative does not meet the I-69 ORX project's purpose and need and serves as a comparison against the potential impacts of the build alternatives, in accordance with NEPA. The No Build Alternative includes the existing transportation network plus all proposed transportation projects listed in the Evansville Metropolitan Planning Organization (EMPO) *Transportation Improvement Program (TIP) 2020-2024*. The No Build Alternative also assumes that a major rehabilitation of the existing US 41 bridges would be required. The projects included in the No Build Alternative all have independent utility from the I-69 ORX project.

² Consistent with the Evansville Metropolitan Planning Organization's fiscally-constrained *Metropolitan Transportation Plan*, tolling I-69 will be a key part of the financing for this project. The NEPA process does not determine the toll policy but evaluates the environmental consequences associated with tolling being a part of the project. The toll policy will define business rules and toll rates for different vehicle types and will be developed with the federally-required financial plan prior to construction of the project.

2.3.3 BUILD ALTERNATIVES

DEIS BUILD ALTERNATIVES

Three corridors were carried forward for further development and evaluation in the 2018 DEIS: West Alternative 1 and West Alternative 2, which would both follow the alignment of existing US 41 through the City of Henderson commercial district, and Central Alternative 1, which would follow mostly new alignment approximately 1.5 miles east of the existing crossing. Within Central Alternative 1, the 2018 DEIS identified two potential tolling scenarios for evaluation: Central Alternative 1A included tolling both the new I-69 bridge and the existing US 41 bridge, and Central Alternative 1B would toll only the new I-69 bridge.

Preliminary designs for specific alternatives were developed within these corridors based on public and agency input, assessment of potential environmental and right-of-way impacts, and results of traffic analysis. Follow-on studies were conducted for the alternatives regarding the location and configuration of potential interchanges and the disposition of and long-term maintenance costs for the existing US 41 bridges (i.e., removal of one or both bridges). The DEIS Build Alternatives are shown in Figure 2-1 and are summarized below:

- West Alternative 1: four lanes on the new I-69 bridge and retain the existing northbound US 41 bridge and remove the southbound US 41 bridge, with a new interchange at Watson Lane and improvements at other existing interchanges
- West Alternative 2: six lanes on the new I-69 bridge and remove both existing US 41 bridges, with new interchanges at Watson Lane, Wolf Hills/Stratman Road, and Nugent Drive and improvements at other existing interchanges
- Central Alternatives 1A (toll both US 41 and I-69 bridges) and 1B (toll I-69 bridge only): four lanes on the new I-69 bridge and retain the existing northbound US 41 bridge and remove the southbound US 41 bridge, with new interchanges at US 41, US 60, and existing I-69 in Indiana, with tolling both the northbound US 41 bridge and the new I-69 bridge (1A) or tolling only the new I-69 bridge (1B).

DEIS PREFERRED ALTERNATIVES

The 2018 DEIS identified Central Alternatives 1A and 1B as the Preferred Alternatives for the I-69 ORX project 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.

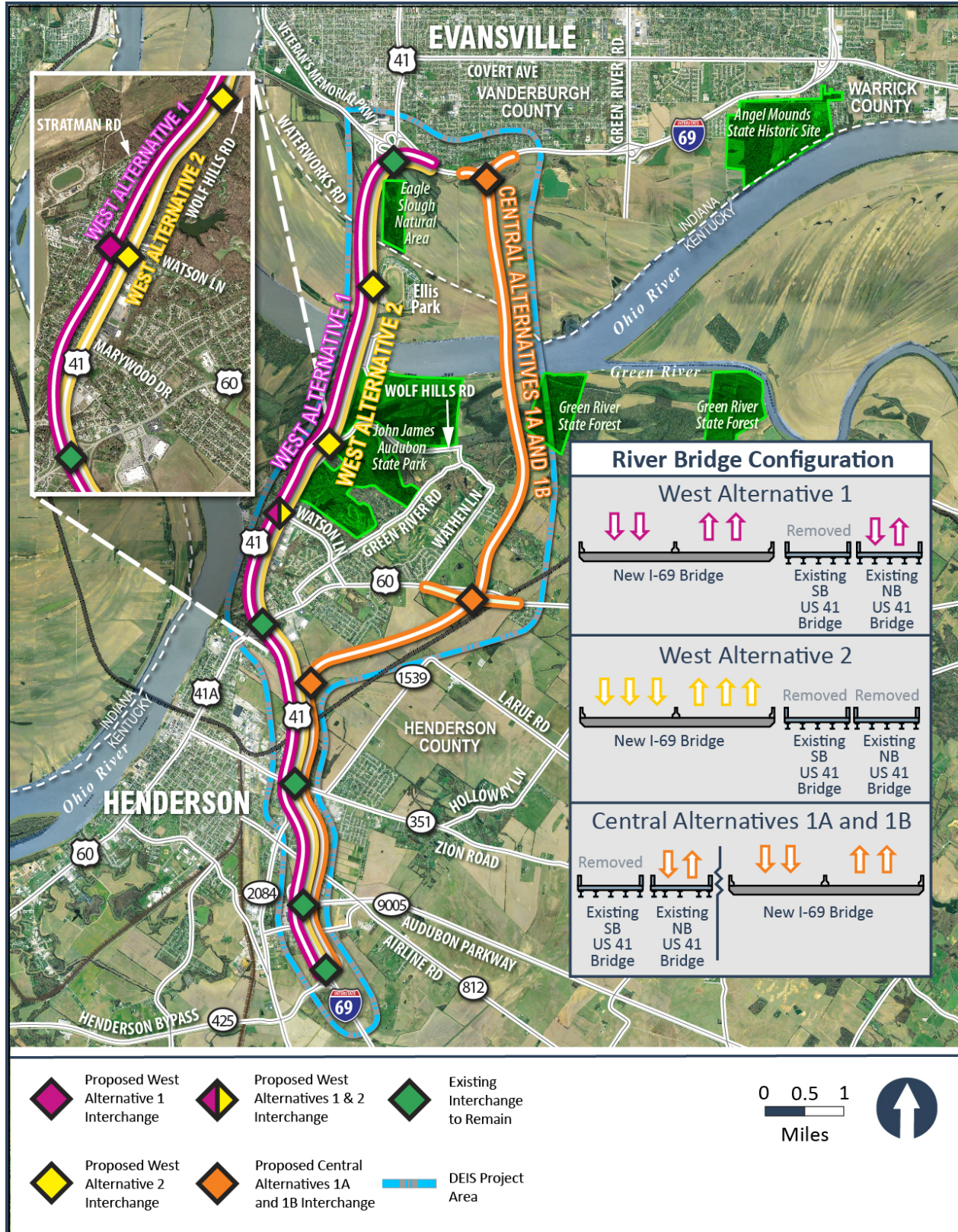


Figure 2-1. DEIS Build Alternatives

DESIGN MODIFICATIONS

In March 2019, a Value Engineering (VE) Study was conducted on Central Alternatives 1A and 1B (Preferred)³ 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 (as documented in the *Value Engineering Study Report*, FEIS Appendix S-1). In addition, as previously discussed in Section 1.1, 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, KYTC led a preliminary design study of Section 1 of Central Alternatives 1A and 1B (Preferred) (as documented in the *Planning Study Report (Final) for the I-69 Ohio River Crossing Project, Henderson: Section 1*, FEIS Appendix T-1).

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 and Single Preferred Alternative (see Appendices C-10 and C-11 of the FEIS), 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 as well as from 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. The bullets below summarize the major elements of and modifications to Central Alternative 1B Modified since the DEIS; Chapter 3, Section 3.4 of the FEIS fully documents the design modifications associated with Central Alternative 1B Modified and Appendix A-4 of the FEIS provides detailed mapping of the design features noted below.

- Basis for modifications – Central Alternative 1B Modified is based on the Preferred Alternatives (Central Alternatives 1A and 1B) from the DEIS, with design modifications as described in the above paragraph. Comments received on the DEIS supported the Central Alternative 1A/1B corridor over the others presented in the DEIS.
- Tolling – Central Alternative 1B Modified would keep the US 41 bridge toll-free and only toll the new I-69 bridge. FHWA, INDOT, and KYTC are sensitive to the potential impacts associated with introducing tolls to the Evansville-Henderson region. As described in Chapter 4, Section 4.2.6 of the FEIS, tolling of both crossings would likely result in a

³ 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.

disproportionately high and adverse impact on environmental justice populations. Additionally, comments received on the DEIS identified concerns with the potential impacts of tolling the US 41 bridge on businesses located in the US 41 corridor in Henderson and on local users, especially low-income drivers who must cross the river to reach work, school, and/or other essential services. After consideration of each of these factors, INDOT and KYTC determined that the US 41 crossing should remain non-tolled (i.e., Central Alternative 1B).

- Existing US 41 Bridges – Central Alternative 1B Modified would remove the southbound US 41 bridge. While comments received on the DEIS supported keeping both existing US 41 bridges operational, FHWA, INDOT, and KYTC have a responsibility to meet future traffic demands in a fiscally responsible manner. Since publication of the DEIS, FHWA, INDOT, and KYTC have continued to evaluate the need for cross-river mobility, the associated long-term maintenance costs, and the states' funding options over the next decade. Travel demand modeling indicates that, even by 2045 and with the completion of I-69 throughout Kentucky and Indiana, six lanes of cross-river capacity would provide an acceptable level of service. As a result, the long-term cost of maintaining both aging US 41 bridges in order to provide excess capacity is not justified. The states will continue to monitor both travel demand and funding opportunities as the project moves toward construction. Additionally, because of its historic significance, INDOT and KYTC will carry out additional marketing efforts to identify a reuse opportunity for the existing southbound US 41 bridge and it will also be marketed prior to its demolition in accordance with the executed Section 106 Memorandum of Agreement for the project (Appendix L-3 of the FEIS).
- Interchange with Existing I-69 in Indiana – This modified interchange would provide a more direct route for traffic traveling eastbound on Veterans Memorial Parkway to northbound I-69 by eliminating the long loop ramp that was part of Central Alternatives 1A and 1B (Preferred). These changes would also reduce impacts to the Ohio River floodplain and floodway. 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 new I-69 bridge shoulders would be reduced from 12 feet to 10 feet on the outside and from 8 feet to 4 feet on the inside to reduce bridge costs. As previously stated, future traffic projections since the DEIS determined that the option to expand the bridge from four to six lanes via restriping the lanes was not needed.
- Bowling Lane extension – The local access bridge over I-69 located north of the US 60 interchange would be replaced with an extension of Bowling Lane. This modification eliminated long-term maintenance costs associated with a new local bridge while maintaining local access. The name of this street will be determined during final design in conjunction with Henderson County.
- US 60 Interchange – The modifications to this interchange improved the connection between Tilman-Bethel Road and the relocated US 60 and removed the existing section of

US 60 and the associated bridge over the CSX railroad to reduce costs. Additionally, the design modifications shifted a portion of US 60 north 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. This basin was added for three reasons: (1) it mitigates the impacts of constructing I-69 across the floodplain and provides for the project's stormwater management requirements, (2) it provides most of the fill material for construction of Section 1 of the project, and (3) it reduces the potential for downstream flooding in Henderson.
- **US 41 Interchange** – The modified design of the US 41 interchange will be constructed in two phases to ensure efficient cross-river travel during implementation. 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. The design modifications, as part of Section 2 design, will provide a direct connection to Kimsey Lane that was not provided by Central Alternatives 1A and 1B (Preferred).
- **KY 351 Interchange** – Subsequent to the DEIS, further analysis of this area indicated that the close proximity of the KY 351 interchange to the partial interchange with KY 2084 did not meet interstate design standards. The revised design for this interchange removes the ramps to/from KY 2084 and reconstructs the KY 351 interchange. The northbound bifurcated section of KY 2084 will be relocated along the existing southbound lane. The reconstruction of the KY 351 interchange includes roundabouts at each of the ramp intersections and another at the KY 351/KY 2084 intersection. The three roundabouts will support the City of Henderson's vision for this gateway corridor as well as provide improved safety and access in this area. The roundabout at KY 2084 will improve access to North Middle School and the roundabout for the northbound exit and entrance ramps will eliminate the northbound exit loop ramp. The partial interchange at KY 2084 will be removed to meet the aforementioned interstate standards for interchange spacing.
- **Northbound Auxiliary Lane between the Henderson Bypass and Audubon Parkway Interchanges** – In order to improve traffic weaving and safety, a northbound auxiliary lane was added between the Henderson Bypass and Audubon Parkway interchanges.

IDENTIFICATION OF THE SELECTED ALTERNATIVE

INDOT and KYTC identified Central Alternative 1B Modified as the Single Preferred Alternative and provided both the public and agencies an opportunity to comment during a 15-day comment period which included a virtual public meeting on April 1, 2021. Copies of all comments received and responses to those comments are documented in Appendix C-11 of the FEIS. Subsequently, Central Alternative 1B Modified was identified as the Selected Alternative based on public and agency comments and the reasons previously identified in Section 2.0 of this ROD.

2.4 PUBLIC OUTREACH AND OPPORTUNITIES TO COMMENT

Public coordination is an integral aspect of the NEPA process. Decisions about the future of the I-69 corridor and Ohio River crossing affect a range of stakeholders. FHWA, INDOT, and KYTC have been committed to an open and transparent process for involving the public. Accordingly, FHWA, INDOT, and KYTC have provided many opportunities for collaborative and meaningful participation throughout the NEPA process. Public open houses were conducted at key stages in both Henderson and Evansville to present information and solicit public comments. Meetings consisted of at least one formal presentation, and an open house before and after the presentation to provide attendees the opportunity to view the displays and converse one-on-one with project representatives. During the comment period for the DEIS, public hearings were also held in both Evansville and Henderson. Additionally, a virtual project meeting, an Interagency Advisory Committee meeting, and a Section 106 Consulting Party meeting were held prior to the publication of the FEIS and this ROD to solicit public and agency comments on the identification of Central Alternative 1B Modified as the Single Preferred Alternative. Comments were accepted at each meeting (written and/or orally) or via the project website, mail, email, or phone. These meetings were supplemented by outreach and information tools, small group and community meetings, and advisory committees.

Details of public involvement and agency coordination are provided in Chapter 8 of the FEIS. A summary of the outreach activities throughout the project follows:

- Public Information Tools and Targeted Outreach: Facilitated continual outreach and encouraged feedback through numerous formats, including: the project offices, the project website, media relations, social media, digital outreach (i.e., videos, e-newsletters, and text messaging), printed materials (i.e., mailers and flyers), small group presentations, property owner contact, stakeholder inquiries, and surveys (mail, digital, and in-person).
- Scoping Public Open House: Meetings held on April 18 and April 20, 2017 to present the draft project purpose and need, preliminary corridors, and the NEPA process schedule.
- Alternatives Screening Public Open House: Meetings held on July 31 and August 1, 2017 to present the findings of the alternatives screening report and the short list of corridors.
- Preliminary Alternatives Public Open House: Meetings held on February 6 and February 7, 2018 to provide additional details for the preliminary alternatives to be evaluated in the forthcoming DEIS.
- Informal Community Conversations: Series of eight informal meetings in April and May 2018, and January 2019 after the DEIS was published, to offer a forum for public comment, address residents' questions about the preliminary alternatives and tolling, and to solicit information for use in the identification of potentially disproportionately high and adverse effects on environmental justice (low-income and minority) populations.
- DEIS Public Hearings: Hearings held on January 7 and January 8, 2019 to provide the public and agencies opportunity to express their comments on the content of the DEIS. Comments accepted on the DEIS from December 14, 2018 through February 8, 2019 (see Appendix C-10 of the FEIS).

- **Single Preferred Alternative Public Meeting:** Virtual public meeting held on April 1, 2021 to provide a project update on the identification of the Single Preferred Alternative. Public comments accepted from April 1, 2021 to April 16, 2021 for incorporation into the FEIS and ROD (see Appendix C-11 of the FEIS).
- **Advisory Committees:** The I-69 ORX project had several advisory committees to provide feedback throughout key milestones of the project process, including the: River Cities Advisory Committee; Environmental Justice Subcommittee; Interagency Advisory Committee; and Section 106 Consulting Parties. Meeting records are provided in Appendix H-3 of the FEIS.
- **Indiana Safe and Accessible Streets Workgroup:** This workgroup met on June 10, 2021 and included 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. Meeting minutes are provided in Appendix H-8 of the FEIS.

2.5 SECTION 4(f) RESOURCES

Section 4(f) of the USDOT Act of 1966 (49 U.S.C. § 303; 23 C.F.R. § 774) establishes that a federally funded or approved transportation project may not “use” land from a publicly owned park, recreation area, wildlife or waterfowl refuge; a public or private historic site either listed on, or eligible for listing on, the NRHP; or archaeological sites that are either listed on, or eligible for listing on, the NRHP and warrant preservation in place, unless there is no feasible or prudent alternative to the use. Section 4(f) use occurs if there is permanent incorporation, temporary occupancy, or constructive use of a protected property. Any such use can only be approved if the agency determines that the proposed action includes all possible planning to minimize harm to protected properties. Additionally, a *de minimis* impact is one that will not adversely affect the activities, features, or attributes of the Section 4(f) property or, for historic properties, that either no historic property is affected by the project or that the project is determined to have “no adverse effect” on the historic property, as part of the separate Section 106 process.

Though multiple public parks, recreation areas, and wildlife or waterfowl refuges resources have been identified in the vicinity of the I-69 ORX project, none would have a Section 4(f) use under the Selected Alternative. Section 5.2 of the FEIS fully documents these Section 4(f) resources.

Though multiple historic resources that are listed in, or eligible for listing in, the NRHP are located in the vicinity of the I-69 ORX project, only one would have a Section 4(f) use under the Selected Alternative: the Southbound US 41 Bridge. Section 5.3 of the FEIS fully documents this historic resource in terms of its Section 4(f) use.

The Southbound US 41 Bridge, which was constructed in 1965, carries southbound vehicular traffic on US 41 across the Ohio River; the bridge is entirely in Kentucky. The southbound bridge was designed to complement the older northbound bridge, using similar materials and the same

structure type. The bridge is recommended as eligible for inclusion in the NRHP under Criterion C with the Audubon Memorial Bridge/Northbound US 41 Bridge as an example of a set of paired cantilevered truss bridges that retain historic integrity. The Selected Alternative would construct the new I-69 bridge approximately 1.5 miles east of the historic property, and the NHRP-eligible Southbound US 41 Bridge would be removed following completion of the new I-69 bridge, which constitutes a permanent Section 4(f) use. The removal of the bridge is necessary because INDOT and KYTC have determined that maintaining the bridges for non-vehicular use is not financially feasible. Because the southbound US 41 bridge is a historic Section 4(f) resource, INDOT and KYTC will carry out additional marketing efforts to identify a reuse opportunity for the existing southbound US 41 bridge and the bridge will also be marketed for reuse prior to its demolition in accordance with the executed Section 106 Memorandum of Agreement for the project (Appendix L-3 of the FEIS). FHWA has developed a Programmatic Section 4(f) Evaluation for FHWA Projects that Necessitate the Use of Historic Bridges, which applies if there are no feasible and prudent alternatives to the use of certain historic bridge structures to be replaced or rehabilitated with federal funds and the project includes all possible planning to minimize harm resulting from such use.

Archaeological fieldwork completed as of April 1, 2021, has identified no sites eligible for inclusion in the NRHP within the archaeological area of potential effects (APE). However, archaeological field investigations have not been completed for the entire APE. The Section 106 Memorandum of Agreement, developed in consultation with the Indiana and Kentucky State Historic Preservation Officers (SHPOs), addresses the process for completing all investigations in the APE.

Based on the Section 4(f) evaluation documented in Chapter 5 of the FEIS, FHWA finds that there are no feasible and prudent alternatives to the use of the Southbound US 41 Bridge by the project and that the Selected Alternative includes all possible planning to minimize harm to the Section 4(f) properties resulting from such use. Further, FHWA confirms that the project meets the criteria for application of the *Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges* for the Southbound US 41 Bridge. FHWA, INDOT, and KYTC, in coordination with the Indiana and Kentucky SHPOs, have committed to carrying out the terms of the Section 106 Memorandum of Agreement to resolve adverse effects to historic resources (Appendix L-3 of the FEIS). These measures to minimize harm to Section 4(f) resources are included in the list of mitigation measures in Section 3 of this ROD.

2.6 ENVIRONMENTALLY PREFERABLE ALTERNATIVE

In cases where an EIS has been prepared, CEQ regulations implementing NEPA require that the ROD must specify the alternative or alternatives considered environmentally preferable (CFR 1505.2(a)(2)). This means the alternative(s) that cause the least damage to the physical environment while also best protecting, preserving, and enhancing historic, cultural, and natural resources in accordance with NEPA's Section 101. FHWA has considered all Build Alternatives (see Section 2.3.3 of this ROD), as well as the No Build Alternative (see Section 2.3.2 of this ROD), and given balanced consideration to the physical environmental effects associated with each. Considering these factors, FHWA has identified the Selected Alternative (Central Alternative 1B Modified) as environmentally preferable for the reasons enumerated below.

Environmental impacts of the I-69 ORX alternatives vary across the range of environmental resource categories, as documented throughout Chapters 4 and 5 and summarized in Chapter 6 and in Table 6.1-1 of the FEIS. For ease of reference, that table is copied in this section as Table 2-1.

Although the No Build Alternative would have fewer near-term impacts to the physical environment, including historic, cultural, or natural resources, than the Selected Alternative, the Selected Alternative would have substantial beneficial impacts on transportation when compared to the No Build Alternative that outweigh the physical impacts of constructing the Selected Alternative. Additionally, the No Build Alternative would not meet the purpose and need of the project.

A review of impacts to the biological and physical environment of the Build Alternatives indicates that no single alternative causes the least damage in all categories. FHWA has determined that the environmental impacts associated with the Selected Alternative are less substantial than the impacts associated with West Alternatives 1 and 2. West Alternatives 1 and 2 were not identified as environmentally preferable because they would result in the highest number of residential and commercial relocations and have the greatest impacts to wetlands, forested habitat, and Section 4(f) resources, including the Green River National Wildlife Refuge.

In addition, West Alternative 1, with the option to toll the US 41 bridge, and West Alternative 2 would likely result in disproportionately high and adverse effects to environmental justice populations. Because Central Alternative 1B Modified is based on the Preferred Alternatives (Central Alternatives 1A and 1B) from the DEIS, with design modifications as described in Section 2.3.3 of this ROD, Central Alternatives 1A and 1B would have similar impacts to the Selected Alternative for certain natural resources, such as wildlife, habitat, and threatened and endangered species, as well as to Section 4(f), cultural, and socioeconomic resources. However, Central Alternative 1A, with tolls on the US 41 bridge, would result in greater impacts to the businesses along the US 41 commercial strip and to local users that regularly cross the Ohio River than the Selected Alternative. It also would likely result in disproportionately high and adverse effects to environmental justice populations, which the Selected Alternative would not. Because the Selected Alternative avoids existing wetland mitigation sites and results in the least impacts to wetlands, it is anticipated that, from a strictly wetland/Waters of the U.S. aspect, the Selected Alternative will be considered the Least Environmentally Damaging Practicable Alternative (LEDPA). A final determination regarding whether the Selected Alternative represents the LEDPA will be made by the USACE during the final design and permitting process.

While the Selected Alternative would have greater impacts to farmlands, floodplains, and floodways than Central Alternatives 1A and 1B, the majority of these impacts are due to the inclusion of stormwater detention basins that were developed during the design modification process to reduce downstream flooding. FHWA has determined that these greater impacts are outweighed by the beneficial impacts associated with the reduction of downstream flooding. Additionally, the Selected Alternative would have the fewest residential relocations than all other alternatives.

Table 2-1. 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 Environmental Justice 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	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
Streams (number/linear feet)							
Perennial	5/1,799		5/1,556	4/1,626		5/1,439	0

IMPACT CATEGORY	WEST ALTERNATIVE 1	WEST ALTERNATIVE 2	CENTRAL ALTERNATIVES 1A AND 1B (PREFERRED)	CENTRAL ALTERNATIVE 1B MODIFIED (SELECTED)	NO BUILD ALTERNATIVE
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 ¹	\$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 – 1,489 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 environmental justice analysis did not identify any disproportionately high and adverse traffic-related impacts to environmental justice 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 FHWA Cost Estimate Review (see Appendix Q-2 of the FEIS).

Subsequent to the implementation of the mitigation measures as documented in Chapter 7 of the FEIS, the Selected Alternative would not result in significant impacts to natural resources including water resources, floodplains/floodways, wetlands, or wildlife and habitat, including threatened and endangered species. Subsequent to the stipulations set forth in the executed Memorandum of Agreement (Appendix L-3 of the FEIS), adverse effects to historic properties by the Selected Alternative would be resolved, as concurred upon by the Indiana and Kentucky SHPOs. Regarding the one Section 4(f) permanent use associated with the removal of the NRHP-eligible southbound US 41 Bridge, FHWA has confirmed that the project meets the criteria for the application of the *Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges*.

3.0 MEASURES TO MINIMIZE HARM

Impacts to environmental resources have been avoided to the extent possible as part of the alternative development process, preliminary design of the Build Alternatives, and design modifications and identification of the Selected Alternative. Agency and public input throughout the NEPA process further identified ways to avoid, minimize, and mitigate impacts. The proposed mitigations for unavoidable impacts and the environmental commitments to ensure their implementation are presented in Chapter 7 of the FEIS and in Table 3-1 below. These commitments are in accordance with agency consultations and regulatory requirements, and reflect the practicable means for the Selected Alternative to minimize environmental harm. Each commitment has been agreed to by FHWA, INDOT, and KYTC, and would be implemented, as appropriate, during design, construction, and/or following construction. Actual dates for future project design and implementation will be informed by agreements between FHWA, INDOT, KYTC, and other agencies, and are dependent upon identifying and securing funding, completing final design, and finalizing all necessary approvals and permits. A separate list of anticipated future required permits, approvals, and authorizations for the I-69 ORX project is provided in Section 4 of this ROD.

Table 3-1. Project Commitments

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
TRANSPORTATION		
Traffic During Construction	A Traffic Management Plan will be developed for the project in coordination with local government officials, emergency service providers, and schools.	Final Design
Emergency Management Coordination	The project team will continue to coordinate with emergency and law enforcement agencies as the project progresses to ensure their response needs are accommodated. Median emergency crossover locations will be confirmed in coordination with emergency and law enforcement agencies.	Ongoing
Emergency Management Coordination	The team will work with fire departments regarding the location, design, and construction of access doors within noise barrier walls for water hydrant access.	Final Design
Local Service Roads	Where reasonable and cost effective, local service roads will be used to maintain community accessibility.	Final Design

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
Local Service Roads	"Landlocked parcels," whose access is altered or cut off by the alignment, will be provided local service roads or they will be acquired.	Prior to Construction
Local Service Roads	Changes in roads used by school bus routes will be discussed with the school systems well in advance.	Final Design and During Construction
Local Service Roads	Where roads are severed, provisions for turnarounds will be included and further refined during the final design phase.	Final Design
Road Closures	Efforts will be made to minimize the disruption of local crossroads to minimize impacts to school bus and emergency provider routes.	Final Design
Road Closures	During and following construction, appropriate signing will be placed at the nearest intersections to warn that the road does not provide for through traffic.	During Construction
Pedestrian and Bicycle Access	The proposed design will accommodate pedestrian and bicycle access by maintaining or reestablishing connectivity for non-motorized users. Specific measures include incorporating sidewalks in locations where existing sidewalks are present or where curb and gutters are planned; providing paved shoulders of sufficient width to accommodate bicycles at over/underpass locations; maintaining access to the Merrill Way Trail via Kimsey Lane and extending the trail along the relocated Kimsey Lane to Van Wyk Road; and not precluding future extensions of Pigeon Creek Greenway.	Final Design
Pedestrian and Bicycle Access	Coordination with local government agencies will continue to determine if any are willing to assume ownership of the US 41 bridges, such as for future use as a dedicated pedestrian and bicycle facility.	Ongoing
Ohio River Navigation	Final concurrence from the United States Coast Guard to determine how river navigation can be least impacted with the construction of the new bridge over the Ohio River will occur following submittal of final design drawings and opportunities for public input.	Prior to Construction
Southbound US 41 Bridge	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.	Final Design, During/After Construction of Section 1, and During Construction of Section 2
RELOCATIONS		
Relocations	Acquisitions and relocations required by the project 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.	Prior to Construction
ENVIRONMENTAL JUSTICE/TITLE IV		
Tolling	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.	Prior to Commencement of Tolling

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
Transit	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).	Ongoing
VISUAL		
Mitigation and Minimization	Throughout final design, techniques will be evaluated using stakeholder and public input to minimize visual impacts and enhance the aesthetics of the project.	Final Design
Mitigation and Minimization	Techniques to mitigate visual impacts from the new interstate may include providing sound walls that limit noise and visibility of the interstate from adjacent land use areas, providing fences between the interstate and adjacent land use areas to increase physical and visual perceptions of safety, creating public art at key locations along the project alternative, and providing a vegetation buffer with shade trees, ornamental trees, shrubs, and perennials between the interstate and adjacent land use areas.	Final Design
Mitigation and Minimization	For bridge alternatives, techniques may include lighting and structural elements, wayfinding, and functional treatments. Lighting and structural elements may include providing appropriately scaled lighting elements along the length of the bridge. Wayfinding elements may include providing gateway signage at the entrances of both the north and south ends of the bridge. Functional treatments may include the integration of visual pattern elements of functional treatments with those of adjacent land uses.	Final Design
Streetscaping	At the KY 351 interchange, streetscaping will be provided in support of the City of Henderson's vision for this gateway corridor.	Final Design
NOISE		
Geometrics	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.	Final Design
Abatement Measures	A final determination on the locations of noise barriers will be made during final design. At such time, additional noise analyses will be performed to more accurately determine barrier performance, barrier characteristics (length and height), and the optimal barrier location for any potential noise barriers that may be recommended for noise abatement.	Final Design
Abatement Measures	Potentially benefited property owners and/or tenants in areas where noise barrier mitigation is recommended based on INDOT/KYTC feasible and reasonableness criteria will be surveyed during final design to determine the desires of benefited receptors in accordance with the reasonableness policies of the INDOT/KYTC.	Final Design
Abatement Measures	Once all feasibility and reasonableness criteria have been evaluated during the final design process, the noise barriers that meet all criteria will be incorporated into the project.	Final Design
Construction Noise	Construction vehicles will be required to follow INDOT and KYTC standard specifications on controlling noise.	During Construction
Construction Noise	Construction noise is unavoidable but temporary in nature and reasonable efforts will be made to reduce impacts to receptors to the extent practicable.	During Construction

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
Construction Noise	In the unusual instance where construction would persist for a period longer than 2 years and where impacts to nearby receptors are determined to be likely, the project team shall have the flexibility to incorporate construction noise abatement measures into the project. 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), and/or other measures to reduce noise impacts.	During Construction
STREAMS AND OTHER SURFACE WATERS		
Avoidance and Minimization	The realignment of surface streams or open water features will be avoided where possible.	Final Design
Avoidance and Minimization	In instances where avoidance is not possible, stream impacts will be minimized and mitigated. 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 (OHWM) elevation.	Final Design
Avoidance and Minimization	During final design, consideration will be given to using alternative armoring materials and may include portions of dry land under bridge openings that would not normally be armored with riprap.	Final Design
Avoidance and Minimization	The use of bio-engineering techniques to provide natural armoring of stream banks will be considered and implemented where practicable.	Final Design
Avoidance and Minimization	Installation of riprap will be limited to areas necessary to protect structure integrity. If riprap is required, it will be installed outside the stream bed and between the toe of slope and the OHWM where possible. In some instances, such as culvert inlets and outlets, riprap may need to be placed within the stream bed to prevent scour. Riprap will be installed at the same elevation as the stream bed to avoid interfering with fish passage. Riprap may also be needed above the OHWM to protect bridge piers and abutments from scour where bioengineering will not suffice.	Final Design/ During Construction
Avoidance and Minimization	Where reasonable, below-water work will be restricted to placement of piers, pilings and/or footings, shaping of spill slopes around the bridge abutments, and placement of riprap.	During Construction
Mitigation and Relocation	Where direct impacts to streams are unavoidable, mitigation will be provided in coordination with regulatory agencies during the Clean Water Act (CWA) Section 404 permitting process.	Final Design
Mitigation and Relocation	Stream mitigation ratios will be determined in consultation with the Indiana Department of Environmental Management (IDEM), Kentucky Division of Water (KDOW), and the U.S. Army Corps of Engineers (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.	Final Design

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
Mitigation and Relocation	If needed, stream mitigation and monitoring plans will be developed for stream relocations, as appropriate. Site-specific plans for stream relocations will be developed during final design considering the needs of sensitive species and other environmental concerns. Plans will include the planting of woody and herbaceous vegetation to stabilize stream banks.	Final Design
Mitigation and Relocation	Continued efforts will be made during final design to identify features that further avoid and minimize impacts. 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	Final Design
Outstanding Surface Water Resource	Further coordination with the 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 Outstanding Surface Water Resources will be maintained and protected unless it can be demonstrated that the proposed modification to the river would not have a harmful effect.	Ongoing
Erosion Control and SWPPP	A Stormwater Pollution Prevention Plan (SWPPP) will be developed and approved by INDOT, KYTC, IDEM, and KDEP prior to construction.	Prior to Construction
Erosion Control and SWPPP	Best management practices (BMPs) will be used in the construction of the project to minimize impacts of erosion and sedimentation. Erosion and sediment control measures will be installed prior to construction and will be maintained throughout construction.	During Construction
Erosion Control and SWPPP	Erosion and sediment controls will include the use of measures that will avoid and minimize impacts to aquatic resources specifically. These measures will be inspected weekly and after rain events and will be repaired or replaced as required. Measures will be adjusted to the phase of construction. Temporary measures will not be removed until the location is stabilized. Permanent measures will remain in place post construction.	During Construction
Floodways/ Floodplains	A hydraulic design study that addresses structure size and types will be conducted during final design to ensure that flood elevations are not affected.	Final Design
Floodways/ Floodplains	Longitudinal and transverse floodplain encroachments will be minimized, where reasonable, through design practices such as longer bridges and perpendicular river/stream crossings. Flood easements may be acquired at these and/or other locations if required.	Final Design
WETLANDS		
Avoidance and Minimization	Wetlands and wetland complexes will be avoided when possible.	Final Design
Avoidance and Minimization	If unable to be avoided completely, wetland impacts will be minimized with shifts in the alignment wherever practicable and feasible in final design.	Final Design
Avoidance and Minimization	Water resources within the right-of-way will be identified on design plans, and these areas will have approved erosion control measures as part of the overall erosion control plan to prevent any filling or contamination of these areas during construction.	Final Design

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
Avoidance and Minimization	Compaction of wetland soils and rutting within wetlands will be minimized by using low ground-pressure equipment and installing temporary equipment mats.	During Construction
Avoidance and Minimization	Soil characteristics can be changed during construction due to inadvertent mixing of topsoil and subsoil. To prevent such mixing in unsaturated wetlands, topsoil will be removed from within the highway construction limits and stockpiled for restoration as close as feasible to its original horizon.	During Construction
Avoidance and Minimization	To minimize impacts in areas where construction might divert drainage or block the normal flow of water through a wetland, cross-drainage will be provided to maintain the hydrologic characteristics of the wetland. Restoration of each wetland will involve returning contours to pre-construction levels and removing temporary control measures.	During Construction
Avoidance and Minimization	Some wetland vegetation will be cut, removed, or crushed during construction. 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.	After Construction
Mitigation and Monitoring	Permanent impacts to wetlands will be mitigated through compensatory mitigation alternatives, to 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 impact acreage, type of wetland, and jurisdiction using mitigation ratios. Impacted wetlands will be replaced at the appropriate mitigation ratio in coordination with USACE.	Ongoing
Mitigation and Monitoring	If needed, a Wetland Mitigation and Monitoring Plan will be prepared as required under CWA Section 404.	Ongoing
Mitigation and Monitoring	Additional measures to avoid or minimize impacts to specific wetlands will be considered, including narrowing the right-of-way, installing drainage features such as swales to ensure that roadway runoff does not enter wetland areas, and designing culverts to maintain the flow of water to a wetland area otherwise cut off from its existing water source.	Final Design
NON-WETLAND FORESTED FLOODPLAINS		
Replacement	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.	During Construction
THREATENED AND ENDANGERED SPECIES		
Additional Consultation	Identification of conservation measures for threatened and endangered species were coordinated with USFWS, as documented in the <i>Biological Assessment (BA) for Multiple Species at the I-69 Ohio River Crossing Project</i> and subsequent <i>Biological Opinion (BO) on the Fat Pocketbook (Potamilus capax) and Sheepsnose (Plethobasus cyphus) and Conference Opinion on the Longsolid (Fusconaia subrotunda)</i> . FHWA will re-initiate consultation with USFWS if the amount or extent of the project area changes, or the project is modified in manner not considered in the Biological Opinion; if new information reveals that the project may affect a listed species or designated critical habitat in a manner or extent not considered in the Biological Opinion; or a new species is listed or critical habitat designated that the project may affect.	Ongoing

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
Standards and Agreements	Construction, operations, and maintenance activities will follow the conditions of the federal and state permits and abide by FHWA, INDOT, and KYTC standards and agreements.	During Construction
Erosion and Sediment Control	Erosion and sediment control BMPs will be installed prior to the start of earth disturbing activities to include tree removal, will be phased and modified during construction, and post construction BMPs will be maintained.	During Construction
Research and Monitoring	All research and monitoring will be done in cooperation with IDNR, Kentucky Department of Fish and Wildlife Resources (KDFWR), and USFWS. Actions and research/monitoring results will be effectively communicated to the parties involved in protection and conservation of endangered species. Open communication and partnerships will be sought at every reasonable opportunity to further coordination of conservation efforts.	Ongoing
Mussels	FHWA has committed to implement the following eleven conservation measures (CMs) specific to mussels, as documented in the <i>Biological Opinion on the Fat Pocketbook (Potamilus capax)</i> and <i>Sheepnose (Plethobasus cyphus)</i> and <i>Conference Opinion on the Longsolid (Fusconaia subrotunda)</i> for the project. The eleven CMs are:	Ongoing
Mussels	<ul style="list-style-type: none"> CM1 Erosion and Sediment Controls: A Stormwater Pollution Prevention Plan (SWPPP) will be developed and approved by INDOT, KYTC, Indiana Department of Environmental Management (IDEM), and the Kentucky Department of Environmental Protection (KDEP) prior to construction. BMPs will be used, including erosion and sediment control measures that will be implemented prior to, and maintained throughout, construction. Temporary seeding and mulch will be used to stabilize disturbed areas. 	Prior to Construction, During Construction
Mussels	<ul style="list-style-type: none"> CM2 Equipment Maintenance, Cleaning, Fueling, and Monitoring Plan (EMCFM Plan): An EMCFM Plan will be developed to prevent equipment related impacts from reaching waterways within the Action Area. Staging, refueling, and clean-up areas will be constructed a minimum of 100 feet from the normal water line, bank of jurisdictional water, or waters of the State to reduce the risk of fluids from equipment leaking into waterways. Fuel and other petroleum products will be stored in the staging area and BMPs will be implemented to minimize the potential for fuel spills and contamination. A spill response plan will be required, and equipment will be monitored during construction operations for any oil, hydraulic, or fuel leaks. If leaks are found, the use of that equipment will be halted until leaks are repaired. All effluent from upland staging areas will be filtered using a variety of BMPs prior to confluence with any waterbodies. 	During Construction
Mussels	<ul style="list-style-type: none"> CM3 Catch Barges for US 41 Roadway Removal: The removal of the existing southbound US 41 Bridge will be designed to minimize and avoid impacts to waterways and mussel habitat to the greatest extent feasible. Catch barges will be used underneath sections of the bridge/roadway as they are demolished to minimize debris from entering the waterway. 	During Construction

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
Mussels	<ul style="list-style-type: none"> CM4 Demolition and Recovery of the US 41 Bridge: The demolition and recovery of the US 41 Bridge will be designed to minimize impacts to the surrounding aquatic environment. The design has not been finalized; however, explosives may be used to demolish the bridge during a navigation stoppage, followed by the use of barge-mounted equipment to remove the debris from the river bed and transport it offsite. 	During Construction
Mussels	<ul style="list-style-type: none"> CM5 US 41 Pier Removal: Barge work platforms will be used to limit material falling into the Ohio River for the US 41 Bridge pier removal. Pier material below the waterline will be dredged from the river bottom and the use of a floating turbidity curtain may be used to limit downstream sedimentation. 	During Construction
Mussels	<ul style="list-style-type: none"> CM6 Upland Storage of Bridge Materials: All bridge materials will be stored at an upland staging area, away from the normal water line. 	During Construction
Mussels	<ul style="list-style-type: none"> CM7 from BO, Barge Spud Locations: To minimize impacts to Ohio River substrates, barges and other boat traffic will be restricted to deploying spuds within impact areas around causeways and piers to isolate substrate impacts to a smaller footprint. 	During Construction
Mussels	<ul style="list-style-type: none"> CM8 Concrete Pouring: Concrete will be poured in a manner to avoid spills into the Ohio River. Piers will be constructed using incased drilled shafts, precast waterline footing platforms, or in the dry, with caissons or cofferdams, preventing concrete spills into the river, while facilitating proper installation. If concrete spills occur, protocols outlined in the SWPPP will be implemented. 	During Construction
Mussels	<ul style="list-style-type: none"> CM9 Environmentally Sensitive Area Minimization Procedures: Construction activities will be avoided/minimized in areas of high environmental quality, including the mussel habitat, to the greatest extent possible. 	During Construction
Mussels	<ul style="list-style-type: none"> CM10 Revegetation of Riparian Areas & Limited Use of Riprap: The use of bio-engineering techniques to provide natural armoring of stream banks will be considered and implemented where practicable. Installation of riprap would be limited to areas necessary to protect structural integrity. If riprap is required to protect erodible slopes, it will be installed outside the stream bed and between the toe of slope and the ordinary high water mark where possible. Design plans will include the planting of native woody and herbaceous vegetation to stabilize stream banks except for areas under bridges. 	During Construction
Mussels	<ul style="list-style-type: none"> CM11 Contribution to Mussel Propagation: FHWA, INDOT and KYTC are committed to making a monetary contribution, based on the number of federally listed mussels in the Action Area (68 Fat Pocketbooks and 9 Sheepnose, Section 4.0). These funds are intended to support recovery efforts by funding propagation efforts for the Fat Pocketbook, Sheepnose, and/or Longsolid at a permitted mussel propagation facility. For the Fat Pocketbook mussel, FHWA has agreed to contribute a total of \$29,784.00 (\$438.00 per individual x 68 individuals = \$29,784.00). For the Sheepnose, FHWA has agreed to contribute a total of \$2,817 (\$313.00 per individual x 9 individuals = \$2,817.00). Therefore, the total contribution should be \$32,601.00. 	Prior to Construction

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
Mussels	In order to monitor the impacts of incidental take, FHWA must report the progress of the project and its impact on the species to USFWS as specified in the ITS (50 CFR §402.14(i)(3)). FHWA will inform USFWS as soon as possible if the amount of take is exceeded or if any Fat Pocketbook, Sheepnose, and Longsolid are observed, injured, or crushed within the project area. FHWA will report any results of monitoring to USFWS, as soon as possible.	During Construction
Bats	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 requirements for construction impacts. USFWS confirmed that the programmatic agreement will be applied in both states, with the exception that Indiana tree clearing restrictions would be followed within Indiana.	Ongoing
Bats	Potential impacts to Indiana, gray, and northern long-eared bats can be mitigated through the below list of conservation measures, as documented in the <i>Biological Assessment for Multiple Species at the I-69 Ohio River Crossing Project</i> .	
Bats	Potential take of 45.8 acres of summer roosting, foraging, and commuting habitat of the Indiana bat will be mitigated following the guidance provided in the above-referenced KYTC Programmatic Agreement, which allows for use of the Imperiled Bat Conservation Fund (IBCF) for forest habitat removal for the entire I-69 ORX project corridor. If the project's final design and construction impacts less than 45.8 acres of Indiana bat habitat, then less mitigation will be required.	Ongoing
Bats	Adhering to seasonal tree clearing in both Indiana and Kentucky reduces the potential for adverse effects to northern long-eared bats and Indiana bats while they are in tree roosts. In Indiana, tree clearing for trees having a 3 inch or greater DBH will not be allowed between April 1 and September 30. In Kentucky, KYTC has indicated they would prefer to use the most recent programmatic agreement and adhere to feasible tree cutting restrictions determined by project needs.	During Construction
Bats	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).	During Construction
Bats	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.	During Construction
Bats	Prior to construction, all existing bridges that will be removed between 15 May and 15 August will be surveyed for the presence of endangered or threatened bats.	During Construction
Least Terns	Future surveys will be completed for nesting least terns if low water allows for suitable habitat to become available within the project corridor. Changes in the river caused by drought, etc., could occur before or during the project's construction. Therefore, if suitable habitat (such as a sandbar or a shoal) becomes present during the project development process and/or construction, surveys will be completed to ensure this habitat is not being used for nesting.	Prior to Construction

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
CULTURAL RESOURCES		
Historic Properties	A Section 106 Memorandum of Agreement (MOA) has been prepared by FHWA, INDOT, and KYTC, in consultation with the Indiana and Kentucky SHPOs and other consulting parties, to resolve adverse effects to historic properties in accordance with Section 106 of the NHPA. Mitigation for potential construction impacts to historic and archaeological sites are addressed in the stipulations contained in the executed MOA, which include the following:	Ongoing
Historic Properties	<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 	Ongoing
Historic Properties	<ul style="list-style-type: none"> 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 	Ongoing
Historic Properties	<ul style="list-style-type: none"> Statewide Truss Bridge Survey and Management Plan, to be completed within 24 months of the execution of the MOA 	Ongoing
Southbound US 41 Bridge	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:	Prior to Construction of Section 2 or Demolition of Southbound US 41 Bridge
Southbound US 41 Bridge	<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. 	Prior to Construction of Section 2 or Demolition of Southbound US 41 Bridge
Southbound US 41 Bridge	<ul style="list-style-type: none"> Post the availability of the structure on INDOT's Bridge Marketing website for a minimum of 6 months. 	Prior to Construction of Section 2 or Demolition of Southbound US 41 Bridge
Southbound US 41 Bridge	<ul style="list-style-type: none"> Broadly publicize the availability of the structure through media releases and outreach to local historic preservation, bicycle, pedestrian, and disabled persons mobility advocacy organizations. 	Prior to Construction of Section 2 or Demolition of Southbound US 41 Bridge
Southbound US 41 Bridge	<ul style="list-style-type: none"> Adhere to any INDOT and KYTC bridge marketing policies in place at the time the marketing effort is initiated. 	Prior to Construction of Section 2 or Demolition of Southbound US 41 Bridge

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
Historic Properties	If the I-69 ORX project is modified in a manner that necessitates modifications to the area of potential effects (APE) or the conclusions of the Finding of Effect, FHWA, INDOT, and KYTC will follow the stipulations for such modifications set forth in the MOA.	Ongoing
Archaeological Resources	The executed 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 to be followed.	Prior to Construction
GROUNDWATER AND HAZARDOUS MATERIALS		
Groundwater Protection Plan	Prior to construction, a Groundwater Protection Plan complying with 401 KAR 5:037 Groundwater Protection Plans 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 system plugging, equipment storage, spill response, precautions for work within wellhead protection areas, and BMPs will be addressed in the plan.	Prior to Construction
Contaminated Soil, Groundwater, and Underground Storage Tanks	An updated Phase I Environmental Site Assessment (ESA) will be completed based on final design of Central Alternative 1B Modified (Selected). Limited Phase II Subsurface Investigations will be conducted as required. Registered Underground Storage Tank (UST) sites will be assessed and closed in accordance with state UST closure guidelines and sampling requirements.	Prior to Construction
Demolition	Residential, commercial, and bridge structures impacted by the project will be evaluated for the presence of potential demolition/disposal issues such as regulated asbestos containing materials, mercury, lead, and polychlorinated biphenyls. These issues will be addressed prior to demolition.	During Construction
Landfills	Written approval from IDEM and and/or KDEP, as appropriate, will be secured for any construction activity/post-closure use at disposal sites.	Ongoing
Landfills	Existing buried waste will remain properly covered/capped or be disposed off-site.	During Construction
Landfills	If wastes encountered during construction are too close to wetlands, streams, or other sensitive areas, they will be removed and properly disposed.	During Construction
Spill Plan	A spill response plan that is acceptable to INDOT, KYTC, IDEM, and KDEP will be required for the project. This response plan will include, at minimum, protocols for contact with emergency response personnel, Safety Data Sheets, and copies of agreements with agencies that would be part of a spill-response effort. The plans will include communication protocols to ensure proper and timely notification of nearby public drinking water supplies in the event of a spill. This will include the wellhead protection areas at Ellis Park and Trocadero Plaza, as well as the Ohio River public water supply intakes for Evansville Water and Sewer Utility and Henderson Municipal Water and Sewer.	Prior to Construction

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
Water Wells	Water wells, monitoring wells, and injection wells within the project area will be labeled on design plans and properly abandoned/plugged to prevent the migration of surface water or contaminants to the subsurface and to prevent migration of potential contaminants among and between water bearing zones.	Final Design
Water Wells	Well closures will be conducted by state-licensed water well drillers in accordance with state regulations 329 IAC 12-13 and 401 KAR 6:310-350.	During Construction
Geotechnical Boreholes	During geotechnical investigations, INDOT's <i>Aquifer Protection Guidelines</i> and KYTC's <i>Sealing Geotechnical Boreholes</i> will be followed to ensure boreholes are properly closed in a manner that is protective of groundwater.	Ongoing
Geotechnical Boreholes	Existing landfills will be marked on project plans and unique special provisions will be developed in coordination with IDEM or KDEP for any work to be conducted near those areas.	Final Design
Petroleum Wells	If evidence of unplugged or improperly abandoned petroleum wells is encountered during construction, the IDNR Division of Oil and Gas, and/or Kentucky Energy and Environment Cabinet (KEEC) Division of Oil and Gas, as applicable, will be contacted. The wells will be abandoned/plugged in a manner that is protective of groundwater.	During Construction
Dewatering	If dewatering activities are needed for construction (e.g., for foundations), a hydrological modeling assessment may be required to identify if any drinking water supply wells, wetlands, surface water resources, or hazardous materials sites (e.g., landfills) have the potential to be impacted. If impacts cannot be avoided, coordination with applicable agencies and stakeholders will be conducted to identify appropriate minimization and avoidance measures.	During Construction
INDIRECT AND CUMULATIVE IMPACTS		
Indirect and Cumulative Impacts	Potential indirect impacts to sensitive resources in the vicinity of the proposed US 60 and US 41 interchanges could be minimized by local, state, and federal regulations that are intended to manage growth and protect resources. The City of Henderson and Henderson County land use plans and zoning regulations can be used to control development in these interchange areas to avoid and/or minimize impacts to wetlands, streams, farmlands, and forests.	Ongoing
MIGRATORY BIRDS		
Surveys	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. If nests are found with eggs, chicks, or parents actively tending to the nest, the local USFWS office will be contacted prior to disturbance.	Prior to Construction

RESOURCE	COMMITMENT OR MITIGATION MEASURE	TIMING OF ACTION
WILDLIFE PASSAGE		
Wildlife Crossings	During final design, the states will evaluate the potential and value of including one or more wildlife crossings, particularly cost-effective opportunities to provide animal crossings above flood elevations. In Kentucky, a wildlife passage will be evaluated near the southern limits of the Ohio River floodplain.	Final Design
Wildlife Passage in Streams	Perennial streams in the project area will be spanned by bridges. Embedded box culverts or 3-sided box culverts will be utilized for other stream crossings where practical. During final design, the states will evaluate the potential and value of including an embedded box culvert as a wildlife crossing.	Final Design
Wildlife Passage in Streams	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.	Final Design
AIR QUALITY		
Air Quality	During construction, the states will incorporate the following air quality control strategies, and other identified BMPs, to the maximum extent practicable and comply with local air quality regulations: utilize alternatively fueled equipment; utilize other emission controls that are applicable to the equipment; and reduce idling time on equipment.	Construction
GREEN RIVER NATIONAL WILDLIFE REFUGE		
Pedestrian Access	As the design of the project is further developed, cost-effective opportunities to provide safe, grade-separated pedestrian access to the refuge across I-69 will be evaluated.	Final Design
Access	INDOT and KYTC will continue to coordinate with USFWS regarding establishment of and access to refuge facilities. All existing public roads in the area of the refuge will be maintained.	Final Design
Access	INDOT and KYTC will work with USFWS during final design to determine appropriate signage identifying and indicating access points for the refuge.	Final Design
FINAL DESIGN		
Design Modifications	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.	Final Design

4.0 MONITORING AND ENFORCEMENT

Coordination with all appropriate state and federal regulatory agencies occurred throughout the NEPA process for the I-69 ORX project. Major regulatory requirements applicable to the identification of the Selected Alternative are documented throughout Chapter 4 of the FEIS, and included the following:

- Consultation regarding historic and archaeological resources under Section 106 of the National Historic Preservation Act and adherence to stipulations set forth in the Section 106 Memorandum of Agreement for the project.
- Consultation regarding threatened and endangered species under Section 7 of the Endangered Species Act.
- Determination of no feasible and prudent alternative to avoid the use of all Section 4(f) properties, and that the Selected Alternative includes all possible planning to minimize harm to, the Southbound US 41 Bridge, which is recommended as eligible for inclusion in the NRHP and, therefore, also eligible for protection under Section 4(f) of the U.S. Department of Transportation Act of 1966.
- Determination that the Selected Alternatives does not have disproportionately high and adverse effects on environmental justice populations in comparison to other build alternatives under consideration, in accordance with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, Council on Environmental Quality (CEQ) guidance *Environmental Justice: Guidance Under the National Environmental Policy Act*, and US Department of Transportation (USDOT) Guidance USDOT Order 5610.2(a).

Permitting activities and approvals that are anticipated to be required for design and construction of the I-69 ORX project are summarized in Table 4-1. Section 4.9 of the FEIS provides full detail on these permits and approvals/concurrences.

Permits and approvals will be obtained for the project prior to construction as required. INDOT and KYTC will ensure the selected contractor adheres to all terms and conditions of the permits during and after construction of the new facility.

Ensuring the implementation of required commitments and mitigation measures, and their reporting requirements, will be performed by INDOT and KYTC. INDOT and KYTC will ensure that a mitigation commitments list to track implementation status, with regular reviews by FHWA as the project progresses, is maintained and updated. The tracking will identify the mitigation commitments and describe the status of activities to date associated with each commitment.

Table 4-1. Summary of Anticipated Future Required Permits or Approvals for the I-69 ORX Project

ISSUING AGENCY	TYPE OF PERMIT/ APPROVAL	AUTHORITY	APPLICABILITY AND TIMING
U.S. Army Corps of Engineers (USACE)	Permit Application	Section 404 of the CWA	Must be issued prior to construction activities that would dredge/fill in waters of the U.S. (streams, wetlands, open water jurisdictional ponds). To be initiated during the project final design phase.
Indiana Department of Environmental Management (IDEM) / Kentucky Division of Water (KDOW)	Water Quality Certification	Section 401 of the CWA	As required under Section 401 of the Federal Clean Water Act, Water Quality Certification is required prior to construction. To be initiated during the project final design phase.
IDEM/KDOW	Permit Application	Rule 5 Permit/ Kentucky Pollutant Discharge Elimination System (KPDES) Permit	Required for project construction to regulate potential discharges of any pollutant into navigable waters. To be initiated during the project final design phase.
USACE	Levee Permit	CWA Section 408	Required approval prior to any use or alteration of a civil works project. To be initiated during the project final design phase. Application review by the local levee authority prior to USACE final approval.
U.S. Coast Guard (USCG)	Bridge Permit	Rivers and Harbors Act Section 9 Permit	Required for construction of the new Ohio River bridge. Formal Bridge Permit Application to be submitted during the project final design phase.
USACE	Bridge Permit	Rivers and Harbors Act Section 10 Permit	Required for construction in the Ohio River. Formal Bridge Permit Application to be submitted at final design phase.
Indiana Department of Natural Resources (IDNR)	Construction in a Floodway (CIF) Permit	Flood Control Act	Required for construction in any navigable waterway and/or floodway in Indiana. To be initiated during the project final design phase.
KDOW/ Henderson County	Permit to Construct Across or Along a Stream/No-Rise Certification	Floodway Requirement	Required for encroachments within a floodway in Kentucky. To be initiated during the project final design phase, with USACE coordination.
Federal Aviation Authority (FAA)	Notice of Proposed Construction or Alteration	14 CFR 77	Required for construction of the new Ohio River bridge due to potential height of bridge. Notice must be filed at least 45 days prior to beginning construction.
Federal Emergency Management Agency (FEMA)	Conditional Letter of Map Revisions (CLOMR)/Letter of Map Revision (LOMR)	44 CFR 65, Section 65.5	Required to document changes to the regulatory floodways of the Ohio River and North Fork Canoe Creek. CLOMR is required prior to construction; LOMR is required following construction.

5.0 CONCLUSION

FHWA has carefully considered the project record including: the DEIS, FEIS, and associated technical reports and analyses; the Section 4(f) determination; the mitigation measures required, including stipulations set forth in the Section 106 Memorandum of Agreement; and the written and oral comments offered by agencies, stakeholders, and the public on this record. Based on this consideration, FHWA has determined that the Selected Alternative is the best option for the I-69 ORX project and that its approval of the Selected Alternative is in the best interest of the public. In reaching this decision, the FHWA finds that the Selected Alternative, which is the environmentally preferable alternative, best fulfills the purpose and need for the project while balancing impacts on the natural and human environment. FHWA, as lead federal agency, consulted with INDOT, KYTC, and cooperating and participating agencies in reaching this decision.

FHWA has further determined that all practicable measures to minimize environmental harm have been incorporated into Selected Alternative and that appropriate commitments are outlined in this ROD and the attached FEIS to be implemented in final design, permitting, construction, and post-construction monitoring.

FHWA has made this decision based on processes in compliance with NEPA and other applicable requirements, and accordingly, the Selected Alternative may be advanced.

__September 16, 2021__
Date of Approval

JERMAINE R
HANNON

 Digitally signed by JERMAINE R
HANNON
Date: 2021.09.16 15:26:13 -04'00'

Jermaine R. Hannon, Division Administrator
Federal Highway Administration, Indiana Division