

**REEVALUATION OF THE
FINDING OF NO SIGNIFICANT IMPACT
and
SECTION 4(F) EVALUATION**

**Milton-Madison Bridge Project
US 421 Bridge over the Ohio River between
Milton, Kentucky in Trimble County and Madison, Indiana in Jefferson County**

KYTC Item No 5-135.80
INDOT No 0501151
Federal Project No MP-112-0421-B001

Submitted Pursuant to 42 U.S.C. 4332 (2)(c) by
the U.S. Department of Transportation, Federal Highway Administration (FHWA),
Indiana Department of Transportation (INDOT),
and Kentucky Transportation Cabinet (KYTC)

Cooperating Agencies
National Park Service
US Coast Guard
US Army Corps of Engineers

February 7, 2011

**Original FONSI Approved
March 2010**

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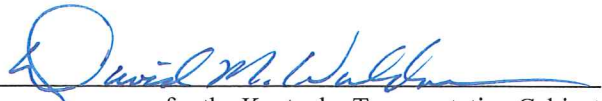
Date of Approval



for the Federal Highway Administration

2/11/11

Date of Approval



for the Kentucky Transportation Cabinet

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for the Indiana Department of Transportation

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**Federal Highway Administration
Reevaluation of the Finding of No Significant Impact (FONSI)
US 421 Bridge over the Ohio River between
Milton, Kentucky in Trimble County and Madison, Indiana in Jefferson County**

I. Introduction

The Federal Highway Administration (FHWA) has determined, in accordance with 23 CFR § 771.119 and § 771.121, that the US 421 Milton-Madison Bridge Replacement Project will not have a significant impact on the human or natural environment. This Reevaluation of the Finding of No Significant Impact (FONSI) for the Superstructure Replacement with Minimal Approaches Alternative is based on reviews of the December 2009 Environmental Assessment (EA), the FONSI approved by FHWA on March 15, 2010, and the conceptual design-build strategy prepared by the selected contractor.

II. Project Background

The purposes for the project as presented in the March 2010 FONSI are unchanged and are to:

1. Improve or replace the functionally obsolete/structurally deficient bridge;
2. Improve or maintain cross-river mobility and community connectivity between Milton and Madison; and
3. Improve safety.

The Superstructure Replacement with Minimal Approaches was identified in the March 2010 FONSI as the Selected Alternative. Based on the preliminary engineering completed for the FONSI, a maximum 365-day bridge closure period was anticipated during the replacement of the truss superstructure and a commitment for a free ferry service was included with the project to preserve community connectivity and maintain traffic during the bridge closure.

In October 2010, the Indiana Department of Transportation (INDOT) awarded the design-build contract for the Project to the contractor, who submitted the lowest bid amount based on construction cost, closure duration, and completion date. The proposed design-build strategy includes 10 total days of bridge closure, a \$102 million construction bid, and a substantial completion date in September 2012. Because of the significantly reduced bridge closure duration, the contractor has proposed removing the ferry service from the Project. The following paragraphs highlight the proposed bridge construction strategy and describe the resulting changes in anticipated impacts to the human and natural environment that necessitate this reevaluation of the March 2010 FONSI.

As described in the March 2010 FONSI, the Superstructure Replacement with Minimal Approaches Alternative will replace the existing truss superstructure with a new, wider truss superstructure similar in profile and appearance to the existing one. The roadway will be widened to 40 feet, which includes two 12-foot lanes and 8-foot shoulders with a bike lane in each shoulder. A 5-foot wide sidewalk will be cantilevered to the

downstream side of the truss. The new US 421 Bridge will have a 35 mph design speed and is projected to carry 12,900 vehicles per day by 2030.

As described in the March 2010 FONSI, the Superstructure Replacement with Minimal Approaches Alternative is the Selected Alternative because

- It can be completed before the existing US 421 Bridge must be closed due to its increasing rate of deterioration.
- It causes the least overall harm to Section 4(f) resources.
- It avoids direct impacts to the National Historic Landmark and other historic resources, except for the existing US 421 Bridge.
- It requires no relocations or displacements.
- It can be constructed and open to traffic in the shortest time period, resulting in the least traffic-related social and economic impacts.

The proposed design-build strategy for the Milton-Madison Bridge follows the steps shown in **Appendix A** to construct a parallel river crossing on downstream piers for use during the demolition of the existing truss requiring an estimated two five-day closures for cross river traffic.

A. Reevaluation of Impacts of the Selected Alternative

The impacts analyzed in the EA include direct, indirect, and cumulative impacts of the Selected Alternative. The contractor's design-build proposal does not alter the final configuration of the Selected Alternative, but does include construction elements which were not addressed in the initial NEPA documentation. The long-term impacts described in the original FONSI will not change. Short-term impacts based on the proposed design-build strategy are discussed below for construction of the downstream piers and detour approaches, reduction of the bridge closure duration, and other construction techniques.

The Selected Alternative avoids, minimizes, and mitigates indirect and cumulative impacts through the mitigation measures described in Section V of this FONSI. The mitigation measures address all known short-term impacts and there are no significant long-term indirect or cumulative impacts.

Construction of a parallel truss structure on temporary piers downstream of the existing bridge leads to potential impacts:

- *Disturbance of the peregrine falcons, which have reliably nested on the US 421 Bridge since 2002.* Construction activities are being coordinated with the Kentucky Department of Fish and Wildlife Resources (KDFWR) to ensure impacts to the birds are minimized to the extent possible. During a December 14, 2010 meeting, the project team agreed to relocate the nest box to the river pier nearest the Indiana shore for the 2011 nesting season. KDFWR have relocated the box and the contractor will wrap the top of other piers to discourage the birds from nesting at these locations.
- *Effects on river navigation due to equipment, increased river traffic, temporary piers, demolition, and truss assembly.* Coordination with the US Coast Guard is

- ongoing to determine appropriate safety measures, lighting requirements, clearances, and other restrictions that will be necessary during construction. Permits developed during the preliminary engineering phase have been revised and resubmitted to the appropriate permitting agencies.
- *Localized effects on water quality and aquatic species from the downstream piers.* No threatened or endangered mussel species were encountered at these locations during the 2009 field surveys. Coordination with US Fish and Wildlife Service indicate that no additional sampling is needed for threatened or endangered mussel species in the construction staging areas. The contractor shall comply with all relevant construction specifications, INDOT best management practices, and permit stipulations to minimize these impacts. Permits developed during the preliminary engineering phase have been revised and resubmitted to the appropriate permitting agencies.

Detour approaches would be constructed from Vaughn Drive in Madison and Ferry Street in Milton to access the existing truss. The detour approaches fall beyond the boundaries of the Madison National Historic Landmark and Milton's Third Street District, but the Vaughn Drive detour approach is within the Madison Historic District. This construction leads to impacts beyond those described in the EA:

- *Changes in traffic patterns.* Bridge traffic (an estimated 11,000 vehicles per day) would be routed along Ferry Street in Milton to the boat ramp entrance, across the river, and along Vaughn Drive to Ferry Street and SR 56 in Madison to reconnect with US 421. With minor adjustments to traffic control devices at key intersections, the existing roadways are adequate to meet the traffic demand without exceeding existing vehicle storage space in either community. The contractor is developing a maintenance of traffic plan to address these impacts.
- *Potential to affect archaeological site 15Tm112 in Milton.* There is an Adverse Effect to the site eligible for the National Register of Historic Places (NRHP) and the work completed has exhausted the data potential (mitigation) in the area of impact. Supplemental fieldwork was conducted at site 15Tm112 in December 2010 and has been coordinated with the Kentucky State Historic Preservation Office (SHPO). KYTC and the SHPO concur with the recommendations that the prehistoric component of the site is eligible for inclusion in the NRHP. The historic component of the site is considered to be non-contributing to the site's eligibility for the NRHP. Based upon the data retrieved from the site and the anticipated level of impact, no additional work is required. The management summary and concurrence letter from the SHPO are included as **Appendix E**.

Reduction of the bridge closure period from the originally planned 365 days to the currently planned 10-day estimate will have a less severe impact on the communities.

- *Removal of ferry service.* The ferry service between communities is proposed to be eliminated based upon the innovative design-build strategy, which includes a bridge closure of approximately ten calendar days, to minimize the adverse impacts to community connectivity.
- *Detour during closure.* During the two estimated five-day closure periods, cross-river traffic would be required to detour to an alternative Ohio River Bridge,

either the I-65 Bridge at Louisville located 46 miles downstream or the bridge at Markland Dam located 26 miles upstream. Construction disruptions and traffic diversions have the potential to lead to localized negative economic effects during the time the detour is in place. Mitigation measures are included in the Amended Section 106 Memorandum of Agreement (MOA), presented in Section V and **Appendix B**, to offset these impacts.

- *Emergency medical transport.* Provisions for cross-river transport for emergency medical services during the estimated ten-day closure will be included as part of the project. Discussions on the type of emergency transport are underway.

Modified construction techniques associated with the downstream piers and detour approaches will lead to slightly increased noise and vibration effects for properties along Vaughn Drive in Madison and Ferry Street in Milton than those discussed in the March 2010 FONSI. However, subsequent analysis indicates that the vibratory impacts remain below the threshold for damage at nearby historic properties. Construction activities which generate disruptive noise levels will be limited to daytime hours to minimize noise impacts at nearby residences. The contractor will be required to comply with OSHA requirements for noise attenuation devices on construction equipment and standard INDOT measures in the construction specifications.

III. Coordination & Consultation

Public and agency involvement is an integral and critical component of the NEPA project development process. A comprehensive stakeholder involvement strategy was developed to incorporate opportunities for comment for many different types of stakeholders: Section 6002 Cooperating and Participating Agencies, Section 106 consulting parties, Project Advisory Group (PAG) members, the media, and the public.

Following the design-build contract award in September 2010, multiple stakeholder outreach efforts have been held.

- On October 20, 2010, the project team hosted a webinar and in-person meeting for PAG members, consulting parties, and resource agencies. The purpose of the meeting was to review recent project events, overview the design-build proposal, and discuss next steps.
- Throughout December 2010, coordination with Section 106 consulting parties was undertaken to identify revised effects and recommended mitigations resulting from the proposed design-build strategy. The project team worked with consulting parties to develop consensus and produce an Amended MOA. The Amended MOA is attached as **Appendix B**.
- A newsletter was distributed to the public and posted on the website on December 29, 2010.
- On January 18, 2011, the project team hosted a public informational meeting at the Milton Elementary School. The 120 participants were given opportunities to view an animation of the construction sequence, review project documents, and converse with project team members one-on-one. Comments and questions received were generally requests for clarification about the construction process.

A summary of the public meeting is attached as **Appendix D**, along with copies of comments received.

- A draft of this FONSI Reevaluation was provided to Cooperating Agencies on January 24, 2011.

In addition to these, extensive coordination efforts were undertaken to ensure all stakeholders were notified of upcoming meetings and informed of key project milestones. Extensive coordination with the media provided timely coverage in local newspapers to reach a large portion of the regional population. The project website (www.MiltonMadisonBridge.com) served as a document clearinghouse to make reports accessible to a wide audience. Direct newsletter mailings were sent out at key milestones and prior to each public meeting; additional copies of the newsletters were distributed to government offices in both communities. Variable message signs along US 421 advertised upcoming public meetings. Also, the project team responded to emails and written correspondence from local citizens and the local media. A copy of this document will be posted on the public website once signed.

IV. Section 4(f) Resources

The Selected Alternative will result in the use or potential use of the following three Section 4(f) properties: the US 421 Bridge Superstructure, Jaycee Park in Madison, and the Milton Boat Ramp. The FHWA finds there are no feasible and prudent alternatives to avoid the use of these Section 4(f) properties. Chapter 8 of the EA describes these resources and the measures that will be taken to minimize harm to the Section 4(f) properties and ensure recreational opportunities are preserved during construction. All possible planning measures to minimize harm to these resources have been incorporated into the project development process. FHWA's findings regarding Section 4(f) resources are summarized in the following paragraphs.

Replacement of the existing US 421 Bridge truss is approved as the Programmatic Section 4(f) Use of the US 421 Bridge. This use is authorized under the *Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges*. Chapter 7 of the EA discusses Section 106 consultation activities undertaken for the project. Members of the public were given an opportunity to comment on the Section 4(f) use of the US 421 Bridge at the January 2010 public hearing; no comments were received.

The use of Madison's Jaycee Park surrounding the northern bridge abutment is approved as a *de minimis* Section 4(f) Use of Jaycee Park. Following construction, the park will be returned to its existing condition or better. A letter from FHWA and the mayor of Madison is included in **Appendix C**, documenting his concurrence with this finding. Members of the public were given an opportunity to comment on the Section 4(f) use of the park at the January 2010 public hearing and during a comment period in November 2010; no comments were received.

The Milton Boat Ramp will also be used during the bridge closures for the emergency services ferry. The detour approach ramp in Milton will connect to KY 36 at the boat

ramp entrance, making access less convenient for boaters while the detour approach is in use. The use of the boat ramp is approved as a *de minimis* Section 4(f) use of the Milton Boat Ramp. Following construction, the existing boat ramp will be returned to its preconstruction condition or better. A letter from the Mayor of Milton documenting his concurrence with this finding is included in Appendix M of the EA. Members of the public were given an opportunity to comment on the Section 4(f) use of the boat ramp at the January 2010 public hearing; no comments were received.

The Vaughn Drive detour approach lies within the Madison Historic District. Because the construction footprint lies entirely within existing right-of-way of Vaughn Drive, the duration of increased traffic is temporary, there are no anticipated permanent adverse physical impacts, and the area is being fully restored, there is no Section 4(f) use in this case. During the Section 106 consultation process, these effects were discussed with the Indiana SHPO, the City of Madison, and other consulting parties; their agreement is documented in the Amended MOA. The Contractor has an agreement with the City of Madison for the closure of Vaughn Drive and the construction detour.

A Section 4(f) use of the Madison City Campground was originally part of the project when the site was planned for a ferry parking/queuing area. However the elimination of the ferry service, except for the emergency ferry service, has eliminated the Project's use of this resource. The emergency ferry service will not require a right-of-way take from the campground or a temporary use.

V. Mitigation/Commitments

A majority of the potential impacts associated with the construction of the Selected Alternative will be avoided or minimized. The design and construction of the superstructure replacement will incorporate measures to minimize harm to the environment, as described in the table below. The Amended Section 106 MOA for the project contains additional details about mitigation for impacts to historic resources.

Mitigations and Commitments

Measure	Responsible Party
<i>Economic-based Impacts</i>	
<p><u>Madison Tourism/Marketing Campaign</u> Funding up to \$205,000 for a heritage tourism and promotional marketing effort for Madison. This marketing campaign shall include a regionally based promotion designed for local businesses to continue attracting customers during and after the bridge closure and construction period, highlighting the innovative construction techniques and shortened bridge closure period. This may also include an Internet Promotional Campaign.</p>	<p>INDOT Agreement with Madison</p>
<p><u>Milton Tourism/Marketing Campaign</u> Funding up to \$40,000 for tourism and promotional marketing assistance for Milton. This marketing campaign shall include a regionally based promotion designed for local businesses to continue attracting customers during and after the bridge closure and construction period, highlighting the innovative construction techniques and shortened bridge closure period.</p>	<p>KYTC Agreement with Milton</p>

<p><u>Business Planning Seminar/Consultation</u> Funding for the activities and duties performed by the Madison Main Street Program that are associated with grants and other assistance for improvements to assist businesses in lower Madison, the Madison National Landmark District, the Madison Historic District, Hunter's Bottom Historic District and Lower Milton to prepare for and adjust their business practices to best position them for the market disruption caused by the bridge construction and estimated 10-day bridge closure. This reimbursement shall not exceed \$40,000 annually.</p>	<p>INDOT Agreement with Madison</p>
<p><u>Madison Historic Preservation Officer</u> Funding for a period of two years for activities performed by a Historic Preservation Officer in Madison in seeking new opportunities for grants and other assistance for the use in improvements for the Madison Historic District and the Madison National Historic Landmark District. This reimbursement shall not exceed \$40,000 annually.</p>	<p>INDOT Agreement with Madison</p>
<p><i>Impacts on Historic Resources</i></p>	
<p><u>Parallel Section 106 Process</u> A consultation process parallel to that of the Section 106 consultation process shall be used should any future improvements to the US 421 Bridge approaches be advanced, regardless of the funding source. FHWA, in consultation with the ACHP, shall approve the consultation process as being similar to the Section 106 process.</p>	<p>INDOT / KYTC</p>
<p><u>Offer Existing Truss for Relocation</u> INDOT offered the existing truss for relocation by posting a notice on INDOT's Bridge Marketing Website. No inquiries were received.</p>	<p>COMPLETED: INDOT</p>
<p><u>Preservation of Bridge Builder Plates</u> The builder plates will be removed from the existing bridge and other plaques, if in existence. These plates shall be offered to the City of Madison for permanent display accessible to the public.</p>	<p>INDOT / KYTC / Contractor</p>
<p><u>Documentation of Existing Bridge</u> Documentation of the bridge will be completed, including photos, as-built plans, and full written documentation (Level 2 HAER Documentation). Documentation will be provided to the National Park Service and other local entities.</p>	<p>INDOT</p>
<p><u>Aesthetics of Replacement Truss</u> The replacement bridge will be a 4-span truss design with a profile similar to the existing bridge and will have a blue-gray color.</p>	<p>Contractor</p>
<p><u>Renovation of 1929 Film of Bridge Ceremony</u> The original 35 mm nitrate film of the opening of the 1929 bridge has been restored and duplicated to modern film and DVD.</p>	<p>INDOT / KYTC</p>
<p><u>Amend National Register Form (Milton)</u> A study will be prepared for the possible expansion of the boundaries of the Third Street Historic District to include other historic structures in the area. If determined appropriate after consultation with the KY SHPO, a nomination for the NRHP shall be prepared, to be initiated within two years of construction letting.</p>	<p>KYTC</p>
<p><u>Archaeological Commitments</u> Phase I archaeological investigations have been completed for areas within the existing bridge rights-of-way in Milton and Madison; one site (15Tm112) was identified in Milton. The prehistoric components are eligible for the NRHP; no additional field work is required.</p>	<p>KYTC</p>

<i>Construction-based Impacts</i>	
<p><u>Innovative Construction Techniques</u> INDOT's innovative design-build contracting techniques and innovative bidding procedures were used to minimize the closure of the bridge.</p>	COMPLETED: INDOT
<p><u>Construction Vibration Monitoring</u> Three historic structures will be monitored for construction vibration damage. This shall include the two adjacent structures in Milton and one adjacent structure in Madison. If damage occurs as a result of project activities, INDOT and KYTC or their contractors shall be responsible for repair of any resulting vibration damage to historic properties. Any repairs shall be coordinated in advance with the respective SHPO.</p>	INDOT / KYTC / Contractor
<p><u>Limit Construction Activity for Special Events</u> Construction activity shall be limited during special events. KYTC and INDOT, with input from the cities of Madison and Milton, shall identify the special events for which this provision applies.</p>	INDOT / KYTC / Contractor
<p><u>Traffic Management Plan</u> The contractor shall develop and utilize a Traffic and Parking Management Plan for maintenance of traffic during construction that is sensitive to the historic districts and makes practical and reasonable efforts to minimize impacts to the historic districts.</p>	Contractor
<p><u>Provisions for Emergency Medical Service</u> KYTC shall work with Milton and Trimble County to determine appropriate provisions for cross-river transport for emergency medical services during the ten day closure. Any necessary improvements to Madison's former boat launch and the boat ramp in Milton shall be constructed to facilitate operation of the cross-river emergency medical services.</p>	INDOT / KYTC / Contractor
<i>Other Mitigations and Enhancements</i>	
<p><u>Peregrine Falcon Coordination</u> Weekly coordination during the nesting season with the KY Department of Fish and Wildlife Resources will be undertaken to minimize impacts to the peregrine falcons nesting on the bridge.</p>	INDOT / KYTC / Contractor
<p><u>Milton Bicycle/Pedestrian Study</u> Funding will be provided for a planning study for a new combined pedestrian/bicycle facility along KY 36 in Milton, including Cooper's Bottom Road, Maple Street, School Hollow Road, High Street, and Ferry Street.</p>	KYTC
<p><u>Milton River Walk Study</u> Funding will be provided for a planning study for walkways along the Ohio River and a scenic river overlook in Milton, similar to the Madison Riverwalk.</p>	KYTC
<p><u>Regatta Racecourse Relocation Survey</u> Funding will be provided for the Madison Regatta to complete an underwater survey so that the race course can be relocated in 2011-2012.</p>	INDOT / KYTC
<p><u>Milton Boat Ramp Improvements</u> Following construction, the Milton Boat Ramp will be repaved. Sidewalk connections and permanent restroom facilities will be added.</p>	INDOT / KYTC / Contractor
<p><u>Jaycee Park Improvements</u> Following construction, areas of Jaycee Park used for construction will be restored to their original condition or better, including the basketball court, playground equipment, two picnic shelters, volleyball courts, sidewalk connections, and parking areas.</p>	INDOT / KYTC / Contractor

The revised mitigations and commitments have been posted to the project website. The status of the mitigations and commitments will be updated and posted on the project website, as appropriate, over the life of the construction project.

Appropriate permits shall be secured prior to construction activities, including:

- Section 401 Water Quality Certification from Indiana Department of Environmental Management (IDEM) and Kentucky Division of Water (KDOW)
- Construction Along/Across a Stream Permit from KDOW
- Construction in a Floodway from Indiana Department of Natural Resources
- Section 10 and Section 404 permits from US Army Corps of Engineers
- Section 9 permit from US Coast Guard
- Pollutant Discharge Elimination System permit from KDOW and IDEM

VI. FHWA Decision

The March 2010 FONSI has been reevaluated based on the modified design-build proposal, as required by 23 CFR 771.117. FHWA has reviewed all of the relevant documents and materials as well as all comments from the public and agencies received. It has been determined that no changes have occurred in the project, the project area, the regulatory requirements, or the environmental effects of the Selected Alternative that would invalidate the previous environmental approvals or significantly affect the quality of the natural or human environment. The proposal to shorten the bridge closure time to an estimated 10 days will have a less negative effect. The ferry service as committed to in the March 2010 FONSI will not be necessary because of the shortened bridge closure. There is a commitment within this reevaluation of the FONSI for the project to provide emergency medical service during the two estimated five-day bridge closures.

FHWA hereby approves the issuance of this FONSI Reevaluation for the US 421 Milton-Madison Bridge Project. As to project mitigations, INDOT and KYTC, on behalf of FHWA, are hereby required to ensure completion of all mitigations outlined above and set out specifically in the December 2009 US 421 Milton-Madison Bridge Project EA unless revised within this FONSI Reevaluation and/or the amended project Section 106 MOA. INDOT and KYTC are also required to ensure that any and all local, state, and federal permit agencies and conditions are met and otherwise complied with. It is recommended that this project be advanced to the next phase of project development.