



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Seymour District
185 Agrico Lane
Seymour, Indiana 47274

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Mitchell E. Daniels, Jr., Governor
Michael B. Cline, Commissioner

June 22, 2011

Re: Des. Nos.1172481, Bridge removal project located on old S.R. 1 over the Whitewater River, 0.5 miles south of U.S. 52 in Cedar Grove, Franklin County, Indiana.

Dear Reviewer:

The Indiana Department of Transportation intends to proceed with a project involving the aforementioned bridge removal in Franklin County. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

1.1 Introduction

The Whitewater Bridge is located on old S.R. 1 over the Whitewater River, 0.5 miles south of U.S. 52 in Cedar Grove, Indiana. It is also known as Bridge No. (1X)1-24-06625B). The bridge was constructed in 1896, and consists of two camelback through truss steel spans, with a total structure length of 368 feet. The out-to-out deck width is 18 feet. The deck is constructed of lateral timber overlain with a longitudinal timber wearing surface. The bridge deck and steel stringers were rehabilitated in 1978. The bridge was closed to all traffic on September 3rd, 1999 because it was rated at more than 39.9% below legal loads.

The Whitewater Bridge is eligible for the National Register of Historic places because it meets several of the Criterion C parameters.

The bridge's paint system, timber deck, steel trusses, railing, gusset plates and other connectors are damaged, disintegrated, or destroyed. In addition, the abutments have severe cracking and the steel caissons are out of alignment. The structural condition of this bridge has been appraised at an official rating of 0 out of 9, indicating the necessity to close the bridge to **all** traffic – pedestrian and vehicular.

1.2 Purpose and Need for Removal

The potential for the public to access the bridge represents a serious hazard due to the deteriorated condition of the bridge. The bridge offers a unique scenic view of the Whitewater River and is an attractive nuisance. There is clear evidence at the site that the public has ignored the “closed to all traffic” warning and have used the bridge despite the presence of permanent barrier rail. Ramp boards at both approaches indicate that recreational vehicles such as 4 wheelers have crossed the bridge. A local residence, who owns property adjacent to the north abutment, has experienced vandalism caused by the “droves of teens” who visit the bridge late at night. A fire was purposefully started on the bridge in one location and burned a hole in a section of the timber deck. The extensive deterioration of the bridge deck and rails are a real danger to anyone who crosses the bridge without extreme caution. In addition, the compromised supports (which could collapse) and the likely presence of lead-based paint pose a significant and immediate danger to public safety.

Recreational kayaking, canoeing, tubing and rafting is offered by several outfitters upstream from April through October. The dangling lower lateral cross members present a real hazard to the public. These members could cause serious injury if they fall on the recreational river traffic. The situation is extremely precarious as evidenced by the number of lateral members that have already failed and lay below on the streambed.

The purpose and need of this project is to removal the Whitewater River Bridge in such a way to minimize impacts to recreation, water quality, and fish and wild life resources, and eliminate this present hazard to public health and safety in a responsible manner.

Section 2 – Alternatives

2.1 Overview of the Whitewater Bridge Design.

The bridge was constructed in 1896, and consists of two 182 foot camelback through truss steel spans, with a total structure length of 368 feet. The out-to-out deck width is 18 feet. The deck is constructed of lateral 4 x 8 timber overlain with a 2 x 8 longitudinal timber wearing surface. The deck is supported by eight W10x21 steel beam stringers supported on steel floor beams. The bridge’s two abutments consist of mortared limestone. The north limestone abutment has been altered with a concrete top coat. The interior pier consists of two round columnar steel caissons that extend above the river approximately 45 feet. There are no existing plans on the Whitewater Bridge, so exact dimensions and other properties of the structural trusses and steel floor beams as well as many of the bridge’s structural connections are unknown.

2.2 No Action Alternative

Under this alternative the bridge will be left as is. Although the bridge was rehabilitated with new stringers and deck surface in 1978, the bridge is too deteriorated to allow any vehicle and pedestrian traffic. Many of the structural members and connectors have significant corrosion and section loss. The bridge in its current structural condition poses a safety hazard to recreational users of the river and serves as a dangerous attractive nuisance. The bridge is currently not maintained, since it is closed to all traffic, so its condition will continue to deteriorate and will eventually collapse.

Based on site conditions (45 foot high steep approaches and the variation in river stage), it will be very difficult to retrieve the bridge once it is collapsed on its own. Removal of debris after an unplanned bridge collapse and

the presence of debris in the river would pose significantly higher safety risks to recreational users and the overall environmental conditions at the site.

2.3 Removal and Preservation

Under this alternative the bridge will be removed and relocated-preserving the bridge during removal so it could be reassembled. The bridge is eligible for the National Register of Historic Bridges under criterion C because of its distinctive design type, construction features, and construction technique. It also exhibits the important contributions made by a nationally recognized engineer, designer, fabricator or builder.

Although the bridge has distinctive features, the bridge may have deteriorated to a point that rehabilitation of the bridge is cost prohibitive unless a unique buyer or special grants can be obtained. The lower lateral members of the bridge are either gone or have deteriorated to the point that they are beyond repair. The structural steel has been damaged in several areas by collisions. Of significant concern is that the bridge has not been used for over a decade so deterioration and corrosion have been able to progress unchecked. Pack rust is common at the structural connections and significant section loss (thinning of material) has also been observed at several places. Removing the steel truss sections for preservation could be precarious to the workmen who would need to take extra care in lifting and dismantling the deteriorated structure.

Because of the steep embankments, the height of the bridge, access to the riverbed, and the long spans, removing the deteriorated structure with large cranes could be very difficult, and dangerous. Certainly the removal would need to be planned with careful consideration given to the structural stability of the bridge's members and connections.

Although this alternative is preferable from a historic preservation standpoint because of the historic significance of the bridge, it is likely that this is not a feasible option. Cost to remove and rehabilitate the structure would be very expensive. Removal would be difficult and very slow, especially because of the size and dimensions of the structure given the limited access conditions. Due to the fragile condition of the bridge, dismantling the bridge could be dangerous for the workers. The need for additional support during removal using temporary bents or cranes could restrict the waterway and temporarily affect the recreational businesses utilizing the Whitewater River. Additionally, the work could affect the Whitewater River water quality, fish and wildlife for an extended period of time.

2.4 Controlled Demolition

The objective of this proposed action is to demolish and remove the bridge from the river in a manner that is safe for the environment and human health and is compliant with applicable permit and regulatory requirements. The controlled demolition includes removing all steel structures associated with the bridge for recycling. The south unaltered limestone abutment would be left in place. There are two different methods of removal that have been evaluated using controlled demolition:

2.4.8a Controlled Demolition in Place

2.4.8b Controlled Demolition using Detonation (**Proposed Action**)

Both methods of controlled demolition share several steps that are discussed in the following sections:

- *Site Access and Access Control and Staging of Work*
- *Deck Removal*
- *Transportation and Disposal of Demolition wastes*
- *Traffic Control*
- *Site Restoration*
- *Demolition Schedule*

2.4.1 Site Access and Access Control and Staging of Work

The bridge is located on Old S.R. 1 just south of the Town of Cedar Grove. INDOT would need to acquire right of way in order to stage removal of the bridge. Because of the elevation of the bridge relative to the riverbed, staging areas are proposed at both bridge approach elevation – upper stage area, and riverbed elevation – lower stage area.

Staging areas for parking demolition equipment, storing materials and torch cutting and loading out demolition debris will be established at the bridge. Staging areas will be used during various phases of the demolition process as needed as shown in Appendix B.

A private business in the northwest quadrant offers the best access to the riverbed for staging. This access leads to lower staging on a large sandbar on the northwest side of the Whitewater River. This area offers good access for cranes, or other temporary supports, and is also large enough for moving steel sections by heavy equipment to a truck turn around area for off-site disposal hauling. Access and use of this sand bar is dependent on the river stage. Areas for lower staging on the south side are very limited due to the steep embankment and heavily wooded surrounding areas.

There is room for upper staging on Old SR 1 on the north side of the bridge, and it offers excellent access control since it dead ends at the bridge. Currently a neighboring business parks their tractor trailer on the north end approach to the Whitewater Bridge. There is a small area for upper staging on the south end but it is not large enough for large crane or truck traffic, especially because old S.R.1 cannot be blocked off since it offers the only access to at least a dozen homes on Graf Road as shown in Appendix A. All staging of truck traffic will be conducted from the northwest side, from the upper and lower staging areas. See Appendix B.

It is important to note that the Whitewater River Bridge was inspected in January 2011 to determine its condition. In general, although the steel floor beams, stringers and steel trusses are intact, in its current condition, the bridge would not likely support any construction equipment.

During the demolition period, warning signs such as “Demolition Activities XXX Feet Ahead” will be posted near the site access road and any staging areas to warn passing traffic of demolition activities and associated traffic. A gated fence will be maintained to restrict vehicular and pedestrian traffic to the site. Access by recreationist who may boat or walk into the vicinity while work is being performed will be controlled by posting signs upstream and downstream of the bridge. Local outfitters will be notified in advance and have agreed to work around the demolition schedule by varying the start and end locations of their float routes.

INDOT will implement necessary measure during construction to avoid impacting the south limestone abutment. These measures will include establishing buffer zones and appropriate flagging so that contractors avoid inadvertently impacting the rock wall with heavy equipment during construction. If necessary, protective coverings will also be used to protect the limestone.

2.4.2 Deck Removal

Once the site access and staging areas are established, the bridge demolition will be initiated by removing all existing timber decks to expose the underlying steel structure. The wooden deck will be saw-cut into manageable sizes and safely transported to the upper staging area. Light duty steel plates, or mats will be used as a temporary traffic deck as needed to assist with removal of the wooden deck.

Prior to the demolition, debris containment netting and blankets/sheeting will be installed under the bridge to capture wooden debris generated during the removal. A floating debris containment boom will be installed at a downstream location near the work area to capture any wooden debris that escapes the debris containment device. The debris boom will be deployed in a shallow crossing so that accumulated wooden debris can be periodically cleaned out by hand throughout the demolition process. The debris boom will remain in place throughout the entire deck and steel demolition process. The floating debris boom will be visible on the surface and identifies the work area limit to restrict public access. Additional warning signs will be posted, upstream and downstream to restrict public access to the debris collection area.

2.4.3 Transportation and Disposal of Demolition Waste

The steel and concrete debris will be transported to recycling facilities. Lead paint will not be removed from steel pieces because they will be melted in a furnace. Other demolition waste, such as the timber, will be sent to a landfill for final disposal. Lead is anticipated to be the only hazardous waste that may be generated from the demolition. Other demolition materials are non-hazardous and would not require any special permits for transportation. High-side dump trucks, such as 10-wheeler end-dump trucks, will be used to haul the majority of concrete and demolition waste. The steel debris will be hauled out by semi-trucks. The disposal activities will be conducted in batches to minimize traffic impacts to the area. The following table summarizes how the material removal is anticipated to be performed.

<i>Material</i>	<i>Truckloads</i>	<i>Destination</i>
<i>Steel bridge (118 tons)</i>	<i>24 (5 to 10 tons each)</i>	<i>Recycling Facility</i>
<i>Concrete from pier footings (15 tons)</i>	<i>2 (10 to 12 tons each)</i>	<i>Recycling Facility</i>
<i>Timber and miscellaneous debris (50 tons)</i>	<i>6 (10 to 12 tons each)</i>	<i>Landfill</i>
Total 183 tons	32	

2.4.4 Traffic Control

The timing of haul activities will be coordinated and staggered to avoid unnecessary traffic delays. Local resident will be notified at the beginning of the project and at least 48 hours prior to the planned disposal activities to avoid conflicts.

2.4.5 Site Restoration

Minimum earthwork or grading activities will be performed during the implementation of the demolition. The on-site traffic will be limited to the three staging areas, which will continuously be maintained during the demolition process. Best management practices (BMP), such as placement of sand bags and silt fences along the perimeter of staging areas, will be implemented at the site in accordance with applicable permits. At the end of the demolition phase, all demolition debris will be removed from the site. The north abutment to the bridge will be removed after demolition is completed, and that area will be graded to match the surrounding topography. Regrading of the majority of other site locations is not anticipated to be necessary. All regraded sites will be seeded where appropriate to promote drainage and minimize potential erosion. The sandbar staging area will be restored to its original state.

2.4.6 Demolition Schedule

The lower bridge staging areas are subject to inundation during intense storm water events or high river stage conditions. Therefore, the steel and concrete demolition will be performed only in low water conditions. Low water conditions typically occur between June and November, when the tops of the sheet piled concrete caisson footings are above water. A limited operating period will be established to avoid the potential for flooding of the staging areas, and to adhere to any necessary environmental schedule restrictions.

2.4.7a Controlled Demolition - Removal in Place

Under this controlled demolition alternative, after the timber deck is fully removed, the steel members of the bridge would be cut into intact pieces with torches and moved to the north upper staging area for hauling. The segments will be dismembered through torch cutting to minimize the generation of flying debris. Debris containment netting and fire-proof blankets will be installed to collect cutting debris. The steel members are likely coated with lead-based primer and or paint. Torch-cutting slag, paint chips, and any lead-contaminated debris will be collected with a high-efficiency particulate air (HEPA) vacuum device and handled as hazardous waste for disposal. Lead paint chips if any will be collected with a HEPA vacuum, containerized in a plastic bucket, and profiled and disposed of as hazardous waste. There will be waste profiling and manifesting per the Resource Conservation and Recovery Act (RCRA).

The steel bridge structure will need to be temporarily supported, by cranes or other temporary supports that are staged in the riverbed during this activity. In general, the north span will be demolished first. Stringers and floor beams will be cut into manageable sizes, moved by cranes working from the bridge approaches, and placed in the upper staging area. Steel members that are out of reach will be torch cut and removed to the lower staged area by mobile cranes staged in the riverbed. The two camel back through trusses will be demolished gradually by removing the interior vertical and diagonal members to reduce the total weight of the truss. The top and bottom chords of the truss will then be removed after being cut in manageable sections by mobile crane in the river bed below to either the upper or lower staging area. The steel may be further cut into smaller pieces at the staging area so that they can fit into the transportation vehicle.

The south span steel members will be handled in a similar fashion with work beginning from the south upper staging area. Once steel member are out of reach of the crane, the mobile crane below will need to be used to move the rest of the south span's cut steel members. These materials will be placed in the north lower staging area, and will require multiple crosses over the riverbed.

Once the superstructure (all steel above the caissons) has been removed, the interior pier caissons will be demolished. The steel caissons are thought to contain compacted river gravel. Prior to demolition of the steel bridge, positive identification of the fill material in the caissons will be determined. A specific demolition/detonation plan is to be submitted to the project engineer for removal of the steel caissons, and will be dependent on the type of fill material. Regardless, a debris fence will be installed around the demolition area of the caisson prior to its destruction. Any concrete in the caisson will be demolished using hydraulic splitting techniques or a non-hazardous expansive compound. Broken concrete structures will be removed by mobile crane to the lower north end staging area, directly loaded into a dump truck and transported to a concrete recycling facility for final disposal. River gravel from the caissons will be processed using the same method, though a smaller backhoe with bucket or front loader may be necessary to remove the gravel from the stream. Debris generated during the demolition will be removed from the river, swept up and cleaned daily.

This method is expected to take 60 to 100 days to implement. Use of the mobile crane is likely to cause prolonged disturbances in the riverbed. A raised platform for the crane and its travel path could be constructed in order to minimize riverbed disturbance, but will alter the natural flow. Temporary supports will also need to be erected in the riverbed in order to support the steel structure during demolition. Using this demolition method, the steel structure itself will not end up in the river.

2.4.7b Controlled Demolition -Bridge Detonation (Proposed Action)

Under this alternative, after the timber deck is fully removed, the demolition of the steel structures will be conducted systematically by placing blasts at various strategic components of the bridge so that it can safely collapse into the riverbed below, keeping section of the bridge intact to minimize debris. A blasting plan describing the following shall be submitted, reviewed and approved before the detonation operation begins. The blasting plan will include:

- *Scope of the Detonation Mission*
- *Types of blasts and explosives to be used and justification for their selection*
- *Location of shots and proximity to existing facilities*
- *Blast pattern*

- *Charge weight and Delays*
- *Fly Material Control Plan*
- *Collapse Sequence and Expected Result*
- *Monitoring, Reporting and Controlling Displacements*
- *Explosives Storage and Transportation Procedures*
- *Fire Prevention*
- *Environmental Stream and Wildlife Construction and Mitigation Procedure and site-specific requirements*

The detonation operation will be conducted by the minimum number of experienced personnel necessary to accomplish the mission. Prior to the demolition, guards will be posted to prevent access inside the danger area. All residents within a specified radius of the blast will be notified one day before the blast day.

In general, the collapsed segments from the spans will be removed/dragged to the lower north staging area. The segments will be cut into smaller separated steel components in the staging area and will be transported to an offsite steel recycling facility for final disposal. The segments will be dismembered through torch cutting to minimize the generation of flying debris. Precautions will be used as discussed above to contain all cutting debris. HEPA vacuums will be used to collect lead particulates and paint chips, and the material will be disposed of in accordance with RCRA standards.

The caisson will also be detonated above the sheet piled encased concrete footing in order to remove the caisson columns intact. Removal of the lower caisson footings will be accomplished by cut torching the steel sheet piling one foot below the riverbed and covering the cut/demolished surface with a smooth cap that will not be detrimental to the recreational traffic on the river. Interior concrete will be removed by hydraulic splitting as stated in 2.4.7a above.

This method is the preferred method because it is minimizes the exposure of workers on portions of the superstructure, which rests 40 feet above the riverbed. Detonation and cleanup of the collapsed steel structure is estimated to take six days, approximately one tenth the time of a controlled demolition in place. Environmental impact is also expected to be minimized because of the short duration of this alternative.

2.5 Alternatives Considered and Eliminated from Detailed Analysis

2.5.1 Restore Bridge as a Vehicle Bridge

This alternative was considered but dismissed due to the bridge's poor condition, high cost, and the fact that it is no longer located on an active State Highway. There is a new S.R.1 bridge located less than one mile upstream. Additionally, if the bridge were rehabilitated, routine operation and maintenance would be associated with the structure. Franklin County has refused ownership of the bridge.

2.5.2 Modify the Bridge for Pedestrian Use Only

This alternative was considered but dismissed due to the high cost and time required to design and complete the restoration. If the bridge were rehabilitated, routine operation and maintenance would be associated with the structure. INDOT does not construct, operate, or maintain Pedestrian Only Bridges. Franklin County has refused ownership of the bridge. Additionally, it is expected that demand for a pedestrian and/or bicycle structure at this location would not be high. According to the Indiana Department of Natural Resources, Division of Outdoor Recreation's Indiana Trails Inventory website, only three trails are currently open in Franklin County. Two are associated with the Whitewater Canal and the other loops Brookville Lake. Neither is located near the old SR 1 bridge.

INDOT made an effort to relocate the bridge by posting information about the structure on the Historic Bridge Marketing Website used to alert potentially interested parties in the availability of historic bridges for reuse. One inquiry was received regarding possibly using the bridge on a trail in another county. However, once the condition of the bridge was discussed with Seymour District staff, the person inquiring decided the bridge was probably too far deteriorated to make the intended reuse viable.

2.6 Conclusion

The Whitewater River Bridge on Old S.R.1 in Franklin County at the Town of Center Grove has deteriorated to the point where it is unsafe for all traffic and should be removed. The bridge is a significant attractive nuisance due to its unique location above the scenic Whitewater River. Its use as a popular hangout for teens, particularly poses a significant risk to the public as well as a liability to the Indiana Department of Transportation.

Alternatives to remove the bridge were considered, and a proposed action is recommended. This proposed action involves a controlled demolition of the bridge by detonation. This alternative is preferred because it is considered the safest, quickest and least expensive alternative, and minimizes the environmental impact because of its short duration.

Land use in the vicinity of the project primarily consists of the Whitewater River with forested banks. The INDOT Ecology Section will perform waters and wetlands determinations and a Biological Assessment to identify any ecological resources that may be present. The INDOT Cultural Resources Section will investigate the areas of additional right-of-way for archaeological and historic resources for compliance with Section 106 compliance. The results of this investigation will be forwarded to the State Historic Preservation Officer for review and concurrence.

Should we not receive your response **within thirty (30) calendar days** from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary; a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Brad Williamson, at 812-524-3791 or by email at bwilliamson@indot.in.gov

Thank you in advance for your input.

Sincerely,

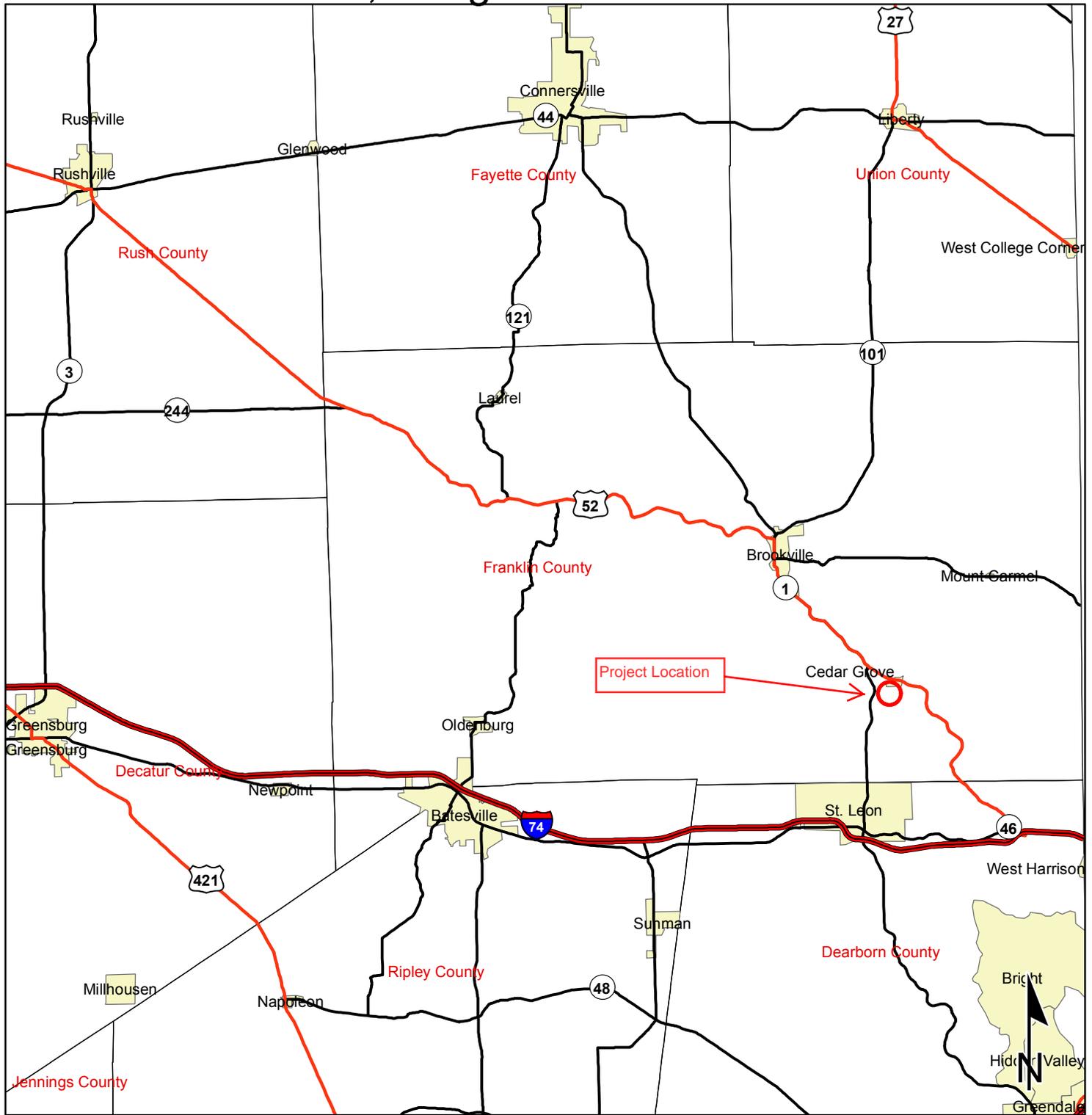
Brad Williamson, Environmental Manager
Environmental Section
INDOT Seymour District
Indiana Department of Transportation

BTL/XXX
Attachment

Project Location Map

SR 1X, Franklin County, Indiana

Des No.1172481, Bridge Removal near Cedar Grove



This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

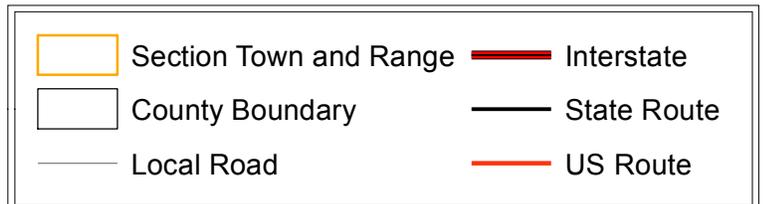
Sources: Non Orthophotography

Data - Obtained from the State of Indiana Geographical Information Office Library

Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Scale 1:303,571





United States Highway 52

Big Cedar

River

Hillside

English Hill

Central

7th

Mill

4th

Bank

8th

7th

Old Hwy US 52

Town of Cedar Grove

U.S. 52



Old State Road

Graf Road
Dead Ends

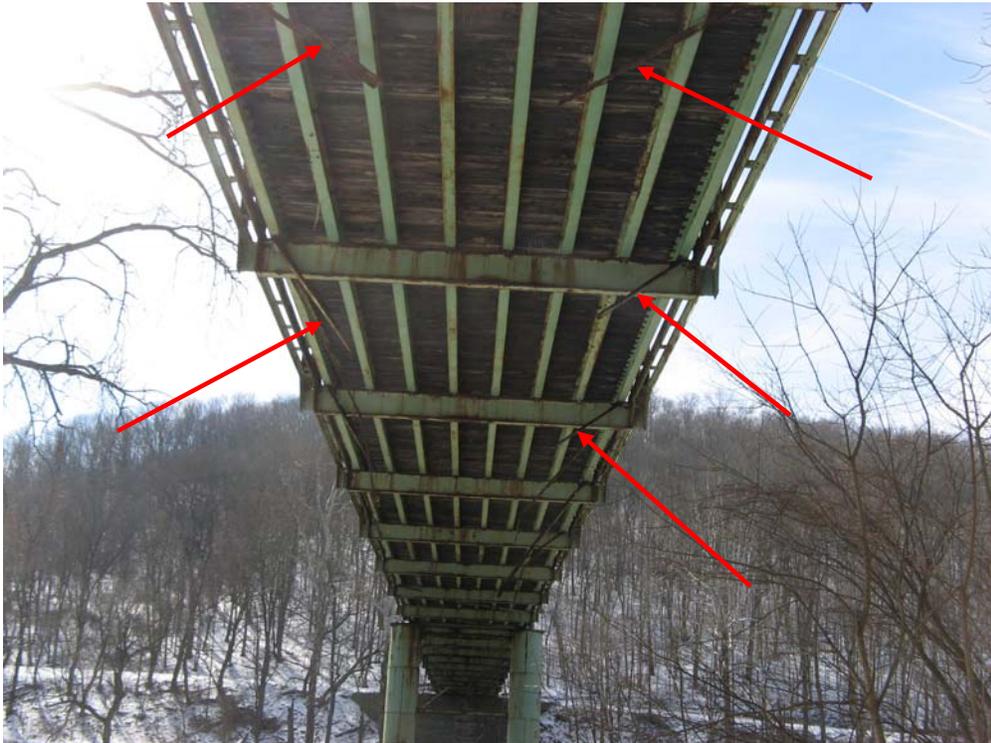
Old State Hwy 1

0 450 900 ft

Appendix C – Photographs



Limited South Staging Area



Old S.R. 1 Bridge with Dangling Lateral Members Looking South



Condition of Timber Bridge Deck



Rail Damage on South End Looking West – Sandbar located on the Northwest Quadrant



Typical Rust Damage on Horizontal Members



Caissons and Lower North Staging Area -Sandbar



Portal Span Failure



Limestone Bridge Abutment –South Side



Altered Bridge Abutment –North Side



South span of bridge – Looking northwest



South span of bridge – Looking northeast



North span of bridge – Looking southwest



Indiana Wellhead Protection Program

Indiana Department of Environmental Management · Drinking Water Branch · Ground Water Section

Wellhead Protection Area Proximity Request Form

Use this form to request information on the proximity of your site to a Wellhead Protection Area (WHPA). Please fill out the form completely and mail, email or fax to the Drinking Water Branch/Ground Water Section. Upon review, you will be contacted with official WHPA Proximity Determination documentation. Send to:

Indiana Dept. of Environmental Management Drinking Water Branch/Ground Water Section ATTN: James Sullivan 100 N. Senate Avenue Indianapolis, IN 46204	Fax: 317-308-3339 Phone: 317-308-3388 Email: jsulliva@idem.in.gov
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Date	6/22/2011	
Person Requesting Information		
Name	Brad Williamson	
Company	INDOT, Seymour District	
Address	185 Agrico Lane Sevmour In. 47274	
Phone	812-524-3971	
E-mail	bwilliamson@indot.in.gov	
Site Information		
Address (please include zip code)	Bridge removal on old SR 1, 0.5 miles south of US 52 in Cedar Grove, Indiana. Franklin County.	
Additional Comments		
For Office Use Only		
Date and Time Request Received		
Date and Time Request Filled		

Des. #:
Project #:
Project Description:
Name of organization requesting early coordination:

Questionnaire for INDOT Aeronautics

Are there any existing or proposed airports located within or near the project limits? If so, describe any potential conflicts with air traffic during or after construction of this project.

This information was furnished by:

Name: _____ Title: _____

Address: _____

Phone: _____ Date: _____

Des. #:
Project #:
Project Description:

Name of organization requesting early coordination:

Questionnaire for the Indiana Geological Survey

1) Do unusual and/ or problem () geographic, () geological, () geophysical, or (), or () topographic features exist within the project limits? Describe:

2) Have existing or potential mineral resources been identified in this area? Describe:

3) Are there any active or abandoned mineral resource extraction sites located nearby? Describe:

This information was furnished by:

Name: _____ Title: _____

Address: _____

Phone: _____ Date: _____

Des. #:
Project #:
Project Description:
Name of organization requesting early coordination:

Questionnaire for the U.S. Forest Service

1) Does the project area support populations of unusual () small game birds, () small game mammals, or () other wildlife species? Describe:

2) Do large numbers of unusual species of migrating birds or waterfowl () nest, () rest and feed, or () winter in the area? Describe:

3) Does the area support rare or endangered wildlife species? Identify and describe:

4) Are the streams in the area high quality sport fisheries (spawning, nursery or complete habitat)? Describe:

5) Are there intensive or experimental management programs in the project area? Describe:

6) Does the project pass through areas of unique () trees, () shrubs, or () other vegetation? Identify and describe:

7) Does the project pass through or adversely affect public () parks, () recreation areas, () wildlife refuges or hunting areas, or () fishing areas? Identify and describe:

Questionnaire for the U.S. Forest Service (continued)

8) Does the project provide potential multiple use of joint development programs for () public access to streams or lakes, () bicycle trails, () scenic overlooks, or () new or improved access to public wildlife or recreation areas? Identify and describe the proposal and suggest a contact point for sources of additional information:

This information was furnished by:

Name: _____ Title: _____

Address: _____

Phone: _____ Date: _____

Des. #:
Project #:
Project Description:
Name of organization requesting early coordination:

Questionnaire for the U.S. Coast Guard

1) Will the proposed improvement cross waterways under your jurisdiction? Identify:

2) Are there any current or future plans to develop these waterways? Describe:

3) Are any Coast Guard projects or studies located within the project area? Describe:

This information was furnished by:

Name: _____ Title: _____

Address: _____

Phone: _____ Date: _____

Flood Risk Assessment

Project No. _____ Date _____
 Structure No. _____ County _____
 Location _____
 Stream Evaluator _____

1. Risks

A. ADT (Construction Year)	<1000	1000-5000	> 5000
B. Homes in Base Floodplain			
Upstream to 1000'	0	1-5	5
Downstream to 1000'	0	1-5	5
C. Adjacent Property Value	low	medium	high
D. Height of Fill	<10'	10'-25'	> 25'
E. Structure Type			
Box/pipe culvert			
Single span bridge			
Three span bridge			
Multiple span bridge			
F. The encroachment is:	Transverse	Longitudinal	
	Yes	No	
G. Is stream unstable?	—	—	
H. Is this the only route for emergency access?	—	—	
I. Practicable detour?	—	—	
J. Known drainage problems?	—	—	
(if yes, describe)			

2. What are the impacts on natural and beneficial floodplain values? _____

3. Will this project support probable incompatible floodplain development? If so, to what extent?

4. Possible measures to minimize the floodplain impacts, and/or restore and preserve the natural floodplain values impacted by this project. _____

5. Determination of significance: _____
