

US Department of Transportation
Federal Highway Administration
Programmatic Section 4(f) Evaluation and Approval for
FHWA Projects that Necessitate the Use of Historic Bridges

US 90 Pearl River Bridges
St. Tammany Parish, LA and Hancock County, MS
H.000284 US 90: Pearl River Bridges (HBI)
and H.000286 East Pearl River Bridge
Federal Aid Project No. H000284 & No. H000286

This statement sets forth the basis for a programmatic Section 4(f) approval that there are no feasible and prudent alternatives to the use of certain historic bridge structures to be replaced or rehabilitated with Federal funds and that the projects include all possible planning to minimize harm resulting from such use. This approval is made Pursuant to Section 4(f) of the Department of Transportation Act of 1966, 49 U.S.C. 303, and Section 18(a) of the Federal-Aid Highway Act of 1968 23 U.S.C. 138.

Approved _____ Date _____



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In accordance with Section 4(f) of the Transportation Act of 1966, as amended, US Department of Transportation agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites, unless there is no feasible and prudent avoidance alternative to the use of land and the action includes all possible planning to minimize harm resulting from such use, or the agency determines that the use of the property will have a de minimis impact.

“Use” is a term specific to Section 4(f) and is defined in 23 CFR 774.17. It falls into three general categories. The first type of use is when land is permanently incorporated into a transportation facility. The second type of use is temporary occupancy for construction-related activities. The third use is called constructive use, which occurs when proximity impacts of the proposed project adjacent to, or nearby, result in substantial impairment to the property’s activities, features, or attributes that qualify the property for protection under Section 4(f).

This report documents the determination that there are no feasible and prudent alternatives to the use of certain historic bridge structures to be replaced with Federal funds and that the projects include all possible planning to minimize harm resulting from such use, pursuant to Section 4(f) of the Department of Transportation Act of 1966, 49 U.S.C. 303, and Section 18(a) of the Federal-Aid Highway Act of 1968 23 U.S.C. 138.

What will the Project Accomplish?

The purposes of the proposed project are:

- To improve the structural integrity and functionality of the bridges.
- To re-establish system linkage on US 90, specifically in the event of a traffic diversion from Interstate 10.

Five bridges are included in this study. Currently, the US 90 corridor from the West Pearl Bridge in Louisiana to the East Pearl River Bridge in Pearlington, Mississippi is closed due to the condition of the bridges. The project calls for the replacement of these bridges so the roadway can be reopened and the system restored.

US 90 Bridge across West Pearl River – CURRENTLY CLOSED

Structure Number: 62520060705291

Recall Number: 058710

The US 90 bridge across the West Pearl River was built in 1933. The structure is 570 feet long and consists of 14 reinforced concrete deck girder approach spans, 2 steel truss tower anchor spans and 1 steel truss lift span in the main navigation span. The main span is elevated to provide a vertical clearance of 10 feet in the closed position and 50 feet in

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the open position. The tension elements in the steel truss spans of this bridge are classified as Fracture Critical Members such that failure of these components would result in collapse of the bridge. The most recent bridge inspection made on 4/26/2022 indicates that many of the steel components have significant corrosion and section loss. The findings of the 4/26/2022 inspection led to the closure of bridge for the safety of the traveling public. The Sufficiency Rating for the structure based on the 2022 NBI data is 6.0 (out of 100) and the bridge is classified as Structurally Deficient. The horizontal bridge roadway width (24 feet) and vertical clearance (15 feet) do not meet LDOTD's minimum requirements for a Rural Arterial (RA-2) roadway. The bridge does not have shoulders.

US 90 Bridge across West Middle Pearl River – CURRENTLY CLOSED

Structure Number: 62520060706701

Recall Number: 058720

The US 90 bridge across West Middle Pearl River was built in 1933. The structure is 582 feet long and consists of 12 reinforced concrete deck girder approach spans and 3 steel pony truss spans across the river. The maximum vertical clearance for vessel navigation is 10 feet. The tension elements in the steel pony truss spans of this bridge are classified as Fracture Critical Members such that failure of these components would result in collapse of the bridge. The most recent bridge inspection made on 12/13/2021 indicates that many of the steel components have varying corrosion and section loss. The Sufficiency Rating for the structure based on the 2020 NBI data is 6.0 (out of 100) and the bridge is classified as Structurally Deficient. The horizontal bridge roadway width (24 feet) does not meet the minimum requirements for a Rural Arterial (RA-2) roadway.

US 90 Bridge across Middle Middle Pearl River – CURRENTLY CLOSED

Structure Number: 62520060707111

Recall Number: 058730

The US 90 bridge across Middle Middle Pearl River was built in 1933. The structure is 582 feet long and consists of 12 reinforced concrete deck girder approach spans and 3 steel pony truss spans across the river. The maximum vertical clearance for vessel navigation is 10 feet. The tension elements in the steel pony truss spans of this bridge are classified as Fracture Critical Members such that failure of these components would result in collapse of the bridge. The most recent bridge inspection made on 12/13/2021 indicates that many of the steel components have varying corrosion and section loss. The Sufficiency Rating for the structure based on the 2020 NBI data is 10.1 (out of 100) and the bridge is classified as Structurally Deficient. The horizontal bridge roadway width (24 feet) does not meet the minimum requirements for a Rural Arterial (RA-2) roadway.

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US 90 Bridge across East Middle Pearl River – CURRENTLY CLOSED

Structure Number: 62520060707701

Recall Number: 058740

The US 90 bridge across East Middle Pearl River was built in 1933. The structure is 582 feet long and consists of 12 reinforced concrete deck girder approach spans and 3 steel pony truss spans across the river. The maximum vertical clearance for vessel navigation is 10 feet. The tension elements in the steel pony truss spans of this bridge are classified as Fracture Critical Members such that failure of these components would result in collapse of the bridge. The most recent bridge inspection made on 12/14/2021 indicates that many of the steel components have varying corrosion and section loss. The Sufficiency Rating for the structure based on the 2020 NBI data is 4.0 (out of 100) and the bridge is classified as Structurally Deficient. The horizontal bridge roadway width (24 feet) does not meet the minimum requirements for a Rural Arterial (RA-2) roadway.

US 90 Bridge across East Pearl River – CURRENTLY CLOSED to Thru Traffic

Structure Number: 62520060800001

Recall Number: 058750

The US 90 bridge across East Pearl River was built in 1933. The structure is 961 feet long and consists of 14 reinforced concrete deck girder approach spans, 2 fixed steel through truss anchor spans and 1 steel through truss swing span in the main navigation span. The main span is elevated to provide a vertical clearance of 10 feet in the closed position and unlimited clearance in the open position. The tension elements in the steel truss spans of this bridge are classified as Fracture Critical Members such that failure of these components would result in collapse of the bridge. The most recent bridge inspection made on 4/27/2022 indicates that many of the steel components have significant corrosion and section loss. The Sufficiency Rating for the structure based on the 2022 NBI data is 6.0 (out of 100) and the bridge is classified as Structurally Deficient. The horizontal bridge roadway width (24 feet) and vertical clearance (15 feet) do not meet the minimum requirements for a Rural Arterial (RA-2) roadway. The bridge does not have shoulders.

The 4(f) Property & Use

The US 90 Pearl River Bridges Project (the “Project”) calls for the replacement of five bridges along US 90 corridor between the West Pearl River, in St. Tammany Parish, LA to the town of Pearlington, in Hancock County, MS. Under Section 4(f), replacement of a historic bridge is considered a permanent use of the Section 4(f) property.

All five bridges were identified as historic structures, eligible for listing on the National Register of Historic Places (NRHP). On September 21, 2015, the Programmatic Agreement (PA) related to historic bridges in Louisiana was executed among FHWA, the Louisiana Department of

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Transportation and Development (LADOTD), and the State Historic Preservation Office (SHPO) along with the Advisory Council on Historic Places (ACHP), an independent federal agency, in compliance with Section 106 ([LADOTD PA for Historic Bridges](#)). This PA outlines the mitigation measures for Louisiana's historic bridges. Four of the five bridges fall under this PA. The East Pearl River Bridge, a border bridge between Louisiana and Mississippi, was not included in the PA. Therefore a separate Memorandum of Agreement (MOA) was prepared that outlines the requirements and mitigation for this bridge. (**Attachment A**).

The MOA and the PA for historic bridges do not satisfy the requirements of Section 4(f) of the Transportation Act, as amended; therefore, a separate evaluation is conducted to satisfy the requirements of the act. FHWA established a programmatic Section 4(f) approval in 1983 for situations where no feasible and prudent alternatives to use of historic bridges. A copy of this programmatic agreement can be found at the following link.

(https://www.environment.fhwa.dot.gov/legislation/section4f/4f_bridges.aspx).

Applicability

FHWA established a programmatic Section 4(f) approval in 1983 for situations where no feasible and prudent alternatives to use of historic bridges. This programmatic Section 4(f) evaluation may be applied by FHWA to the US 90 Bridges project because the project meets the following criteria:

- The bridge is to be replaced or rehabilitated with Federal funds.
- The project will require the use of a historic bridge structure which is on or is eligible for listing on the National Register of Historic Places.
- The bridge is not a National Historic Landmark.
- The facts of the project match those set forth in the sections of the Programmatic 4(f) guidance labeled Alternatives, Findings, and Mitigation.
- Agreement among the FHWA, the State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) has been reached through procedures pursuant to Section 106 of the NHPA.

Alternatives

Do Nothing. The do nothing alternative has been studied. The do nothing alternative does not meet the purpose and need of the project because the existing bridges are structurally deficient and closed. The do nothing alternative ignores basic transportation needs. For the following reasons this alternative is not feasible and prudent:

The do nothing alternative does not correct the situation that caused the bridges to be considered structurally deficient or deteriorated. Normal maintenance is not considered adequate to cope with the situation. These deficiencies can lead to sudden collapse and potential injury or loss of life. The bridges have been closed due to their current condition.

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Because of their deteriorated conditions, the closures of the bridges and roadway has resulted in an intolerable restriction on transport and travel.

Build on New Location Without Using the Old Bridge. It is not feasible and prudent to preserve the existing bridges, even if new bridges were to be built at a new location. Investigations have been conducted to construct the bridge on a new location or parallel to the old bridges (allowing for a one- way couplet), but, for the following reasons, this alternative is not feasible and prudent.

Constructing a new parallel bridge allowing for a couplet does not avoid the Section 4(f) use. The condition of the existing bridges are such that major reconstruction of the bridges is required to reopen the bridges. This reconstruction would destroy the historic integrity of the bridges.

Re-routing the entire project was considered. Compared to the replacement of the bridges on existing alignment, a re-route would be more environmentally damaging because it would require a new alignment through wetlands and other waters of the US. In addition, the existing bridges would have to be retired from service. The existing bridges are at or near the end of their life as motorized vehicular bridges, and no responsible party has been identified with the resources to maintain and preserve their historic integrity.

Rehabilitation Without Affecting the Historic Integrity of the Bridge. Studies have been conducted of rehabilitation measures, but these bridges are so structurally deficient that they cannot be rehabilitated to meet minimum acceptable load requirements without affecting the historic integrity of the bridge. The structural deficiencies and the inadequate geometry cannot be corrected without affecting the historic integrity of the bridges; therefore, rehabilitation is not a feasible and prudent option.

Measures to Minimize Harm

The Project propose to demolish the existing bridges. The PA executed in 2015 among LADOTD, FHWA, SHPO, and ACHP outlines the steps to be taken if a historic bridge is proposed for replacement. These steps have been undertaken for the four bridges located in Louisiana.

The East Pearl River Bridge is not covered by the PA, so a separate Memorandum of Agreement (MOA) is required for this bridge. **A copy of the MOA is attached.** DOTD will adhere to the terms of the MOA. The East Pearl River Bridge will be demolished after construction of its replacement to the south, provided that a responsible entity does not agree to accept and relocate the bridge for a non-vehicular use.

In accordance with the terms of the PA, a Solicitation of Views (SOV) was sent to agencies and other authorities in 2017 related specifically to the historic bridges. Also a project level SOV was sent in 2012, 2014, and 2023.

Coordination with agencies and the public is ongoing as part of the National Environmental Policy Act (NEPA) process. LADOTD and FHWA are preparing an Environmental Assessment (EA) for the

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project, and in the course of environmental review, have provided the public with multiple opportunities to comment.

As stipulated in the PA, LADOTD has developed, maintained, and updated a Historic Bridge Inventory to provide mitigation for adverse effects to historic bridges. LADOTD has fulfilled its Section 106 responsibilities related to the four bridges covered by the PA and, in accordance with Attachment 6 of the PA, offered the bridges for relocation through its dedicated Historic Bridge Marketing webpage at

<https://www.dotd.la.gov/about/office-of-project-delivery/planning/environmental/historic-bridges/historic-bridge-marketing/>

Since sufficient documentation regarding these bridges has been generated as part of the Historic Bridge Inventory effort and broad stewardship and programmatic mitigation efforts have been completed pursuant to the PA and the MOA, no additional mitigation will be required.

Given the information presented in this Section 4(f) evaluation and approval, it is concluded that the proposed project meets the above-noted conditions and thereby complies with Section 4(f) of the Transportation Act of 1966.