

From: Joshua Wayland
To: ["e106@achp.gov"](mailto:e106@achp.gov)
Cc: ["mackshumate@up.com"](mailto:mackshumate@up.com); ["lydia.woods@thc.texas.gov"](mailto:lydia.woods@thc.texas.gov); ["kitty@historicbridgefoundation.com"](mailto:kitty@historicbridgefoundation.com); aschmidt@summite.com
Subject: Notification of Adverse Effect--Railroad Abandonment in Baytown, Texas
Date: Monday, October 03, 2016 4:44:03 PM
Attachments: [e106 form \(AB 33 324X\).docx](#)
[Historic Preservation Documentation \(AB 33 324X\).zip](#)

The attached documents pertain to a proposed railroad abandonment in Harris and Chambers Counties, Texas. Union Pacific Railroad company intends to seek authority from the Surface Transportation Board to abandon approximately 2.23 miles of rail line in Baytown, Texas, which could result in the removal or alteration of a vertical lift span bridge over Cedar Bayou, a historic property that is eligible for listing in the National Register of Historic Places. The purpose of this notification is to (1) notify the ACHP of a finding that an undertaking may adversely affect historic properties, and (2) invite the ACHP to participate in Section 106 consultation. Please contact me at the number below if you need additional information.

Best regards,

Josh Wayland
Environmental Protection Specialist
Office of Environmental Analysis
Surface Transportation Board



Preserving America's Heritage

**Advisory Council on Historic Preservation
Electronic Section 106 Documentation Submittal System (e106) Form
MS Word format**

Send to: *e106@achp.gov*

I. Basic information

- 1. Name of federal agency** (If multiple agencies, state them all and indicate whether one is the lead agency):

Surface Transportation Board

- 2. Name of undertaking/project** (Include project/permit/application number if applicable):

Surface Transportation Board Docket No. AB 33 (Sub-No. 324X)
Rail line abandonment in Harris and Chambers Counties, Texas

- 3. Location of undertaking** (Indicate city(s), county(s), state(s), land ownership, and whether it would occur on or affect historic properties located on tribal lands):

The undertaking would occur within the City of Baytown, Texas, in Harris and Chambers Counties. All potentially affected property is privately owned. The undertaking would not take place on or in the vicinity of tribal lands.

- 4. Name and title of federal agency official and contact person for this undertaking**, including email address and phone number:

Federal agency official:

Victoria Rutson
Director
Office of Environmental Analysis
Surface Transportation Board

Federal agency contact:

Josh Wayland
Environmental Protection Specialist
Office of Environmental Analysis

ADVISORY COUNCIL ON HISTORIC PRESERVATION

401 F Street NW, Suite 308 ☐ Washington, DC 20001-2637
Phone: 202-517-0200 ☐ Fax: 202-517-6381 ☐ achp@achp.gov ☐ www.achp.gov

Surface Transportation Board

Mailing address:

Rm 1107

395 E Street, SW

Washington, D.C. 20423

Email: waylandj@stb.gov

Phone: (202) 245-0330

5. **Purpose of notification.** Indicate whether this documentation is to:

The purpose of this notification is to (1) notify the ACHP of a finding that an undertaking may adversely affect historic properties, and (2) invite the ACHP to participate in a Section 106 consultation.

II. Information on the Undertaking*

6. **Describe the undertaking and nature of federal involvement** (if multiple federal agencies are involved, specify involvement of each):

Union Pacific Railroad Company (UP) intends to a Notice of Exemption or Petition for Exemption under 49 C.F.R. § 1152 with the Surface Transportation Board (the Board) in connection with the abandonment of a line of railroad in Harris and Chambers Counties, Texas. If the Board grants abandonment authority, UP would be able to salvage the railroad line, dismantle any structures located within the rail corridor, and dispose of the right-of-way. The Board's Office of Environmental Analysis (OEA), which is responsible for ensuring the Board's compliance with the National Historic Preservation Act (NHPA), has reviewed the record in this proceeding.

7. **Describe the Area of Potential Effects:**

In railroad abandonment cases, OEA typically considers the Area of Potential Effect (APE) to comprise the rail right-of-way. In the present case, the rail right-of-way extends from UP Milepost 2.4 in Baytown to UP Milepost 4.36 at the east side of Cedar Bayou, a distance of 2.23 miles and ranges in width from 50 to 160 feet. The rail line was constructed in approximately 1968. There are three bridges located within the APE, none of which have been in place for longer than 50 years.

8. **Describe steps taken to identify historic properties:**

Railroad applicants seeking to abandon a rail have been delegated the authority to contact appropriate State Historic Preservation Officers before the Section 106 process under NHPA officially begins. Pursuant to the Board's environmental rules at 49 C.F.R. § 1105.7(b), UP prepared a combined Environmental and Historic Report and served the report on a number of appropriate federal, state, and local agencies, including the Texas Historical Commission (the SHPO).

In its response, the SHPO requested that UP or OEA evaluate the eligibility of a vertical lift span bridge over Cedar Bayou (the Cedar Bayou Bridge) for listing in the National Register of Historic Places (the National Register). The SHPO noted that the Cedar Bayou Bridge was originally constructed in 1912 over the St. Francis River at Cody, Arkansas as part of the St. Louis, Iron Mountain and Southern Railway and was moved to its current location in 1967.

After receiving the SHPO's comments, UP engaged Summit Envirosolutions, Inc. (Summit) to undertake a Historic Resources Evaluation of the Cedar Bayou Bridge. UP provided the report to the SHPO and to OEA.

9. Describe the historic property (or properties) and any National Historic Landmarks within the APE (or attach documentation or provide specific link to this information):

According to the Historic Resources Evaluation report prepared by Summit, the Cedar Bayou Bridge was designed by the firm Waddell & Harrington, whose principals were prominent bridge engineers in the early twentieth century and among the foremost designers of vertical lift span bridges during that period. Because only nine vertical lift span bridges are known to have been built nationwide prior to 1912, the Cedar Bayou Bridge is an early example of this bridge type and was an example of an unusual bridge type in its original location in Arkansas. In its current location, the bridge is a rare extant example of the bridge type, as it may be the only existing example of a pre-World War II vertical lift span bridge in Texas.

The Historic Resources Evaluation report concluded that the Cedar Bayou Bridge may be eligible for listing in the National Register under Criterion C, as a rare extant example of a vertical lift truss span dating from the early twentieth century. The report also concluded that the bridge meets Criteria Consideration B: Moved Properties because it retains excellent integrity of materials, design and workmanship; its major features are of original materials and those components that have been replaced are similar to the originals. Because it remained in use as a railroad crossing following its relocation, the bridge also retains integrity of feeling, association, and setting in its current location, according to Summit.

After reviewing the available information provided by Summit and UP, and in consultation with the SHPO, OEA has determined that the Cedar Bayou Bridge is a historic property that is eligible for inclusion in the National Register under Criterion C as an example of an uncommon and distinctive bridge type. Although it was moved to its present location in 1967, OEA concurs with UP and the SHPO that the move from its original location does not diminish the property's integrity or ability to convey historical significance and that the structure therefore meets Criteria Consideration B for moved properties.

10. Describe the undertaking's effects on historic properties:

When the Board grants abandonment authority in a railroad abandonment case, the railroad applicant is able to remove rail, ties, and related track material, dismantle any rail-related structures, and dispose of the rail right-of-way, provided that the railroad has complied with any environmental and historic mitigation conditions imposed by the Board.

Alternatives to proposed railroad abandonments include rejection, discontinuance of service

without abandonment, and continued operation by another operator. In cases where there are no shippers located on the rail line, however, denial of abandonment authority is rare and must be based on extraordinary economic need for the continued service over the line. The Board cannot deny authority for a railroad to abandon a rail line solely on the grounds that it would adversely affect historic resources.

In the present case, OEA understands that UP intends to salvage rail and related track material from the rail right-of-way, remove and remediate all at-grade road crossings, dismantle rail-related structures, and vacate an overpass crossing a state highway (SR-146) to facilitate a highway expansion project proposed by the Texas Department of Transportation. UP would then dispose of the right-of-way in accordance with applicable reversionary land use agreements. OEA understands that UP is willing to negotiate a sale of the Cedar Bayou Bridge if an interested buyer can be identified. Otherwise, UP may dismantle the bridge as part of its salvage activities.

11. Explain how this undertaking would adversely affect historic properties (include information on any conditions or future actions known to date to avoid, minimize, or mitigate adverse effects):

The granting of abandonment authority in railroad abandonment cases meets the criteria for an adverse effect to historic properties under 36 C.F.R. § 800.5(a)(2)(vii). Once the Board approves a Notice of Exemption or a Petition for Exemption in an abandonment case, the railroad applicant is able to abandon its common carrier authority over the rail line proposed for abandonment. The rail line and any historic properties located within the APE are thereby transferred out of federal control. In the present case, OEA understands that UP is willing to negotiate a sale of the Cedar Bayou Bridge. If no buyer can be identified, however, UP may elect to dismantle the bridge. In that case, the proposed undertaking would also meet the criteria for adverse effect under 36 C.F.R. § 800.5(a)(2)(i).

The Board's ability to mitigate adverse impacts to historic properties is limited. The Board cannot force the applicant to sell off or donate its property, or impose a restrictive covenant upon the deed. Documentation of the historic resources, which may include taking photographs or preparing a history, before they are altered or removed, is generally the only form of nonconsensual mitigation the Board can impose.

Although the Board has limited authority to protect historic properties, if the consulting parties agree to undertake additional mitigation beyond what the Board may require, such consensual mitigation can be incorporated into a memorandum of agreement (MOA). The execution of an MOA completes the Section 106 process for Board actions that may adversely affect historic properties.

In the present case, OEA has begun the consultation process and is developing a Memorandum of Agreement (MOA) with the SHPO, UP, and other concerned parties, to mitigate the adverse effect of the proposed undertaking.

12. Provide copies or summaries of the views provided to date by any consulting parties, Indian tribes or Native Hawai'ian organizations, or the public, including any correspondence from the SHPO and/or THPO.

Copies of the following documents have been attached hereto as documentation of OEA's ongoing consultation with UP, the SHPO, and other interested parties:

- The Combined Environment and Historic Report submitted to OEA by UP;
- The Historic Resources Evaluation report prepared by Summit on behalf of UP;
- A Historic Summary Report prepared by OEA; and
- All relevant correspondences to date between UP, OEA, the SHPO, and other invited consulting parties.

All of these documents have been made available to the public on the Board's website at www.stb.gov.

* see *Instructions for Completing the ACHP e106 Form*

III. Optional Information

13. Please indicate the status of any consultation that has occurred to date. Are there any consulting parties involved other than the SHPO/THPO? Are there any outstanding or unresolved concerns or issues that the ACHP should know about in deciding whether to participate in consultation?

OEA has invited the following organizations to participate as consulting parties in the Section 106 process:

- The Historic Bridge Foundation (contact: Kate Johnson, President)
- Harris County Historical Commission (contact: Janet Wagner, Chair)
- Chambers County Historical Commission (contact: Sheryl Shaw, Chair)

To date, the Historic Bridge Foundation has indicated an interest in participating as a consulting party.

14. Does your agency have a website or website link where the interested public can find out about this project and/or provide comments? Please provide relevant links:

All case information is available on the Board's website at www.stb.gov.

The specific link to all filings, Board decisions, and other formal case documents is:
https://www.stb.gov/home.nsf/case?openform&caseID=31613&caseDocket=AB_33_324_X.

Correspondence with the SHPO and other parties can be viewed at:
<https://www.stb.gov/ect1/ecorrespondence.nsf/public%20incoming%20by%20docket%20number?OpenView> under the heading AB_33_324_X.

15. Is this undertaking considered a "major" or "covered" project listed on the Federal Infrastructure Projects Permitting Dashboard or other federal interagency project tracking system? If so, please provide the link or reference number:

No.

The following are attached to this form (check all that apply):

☒ Section 106 consultation correspondence

☒ Maps, photographs, drawings, and/or plans

☒ Additional historic property information

☐ Other:



SURFACE TRANSPORTATION BOARD
Washington, DC 20423

Office of Environmental Analysis

October 3, 2016

John M. Fowler, Executive Director
Advisory Council on Historic Preservation
Office of Planning and Review
401 F Street NW, Suite 308
Washington, DC 20001-2637

**RE: STB Docket No. AB 33 (Sub-No. 324X)—Union Pacific Railroad Company—
Abandonment of and Discontinuance of Service over the U.S. Steel Industrial
Lead—In Harris and Chambers County, Tex.; Notification of Adverse Effect
and Invitation to Participate in Section 106 Consultation**

Dear Mr. Fowler,

Union Pacific Railroad Company (UP) intends to file with the Surface Transportation Board (the Board) a notice or a petition under 49 C.F.R. § 1152.50 seeking exemption from the requirements of 49 U.S.C. § 10903 to abandon and discontinue rail service over a line of railroad located in Harris and Chambers County, Texas. The rail line proposed for abandonment extends from UP Milepost 2.4 in Baytown to Milepost 4.63 at the Eastside of Cedar Bayou, a distance of 2.23 miles. If the Board grants abandonment authority, UP will be able to salvage any track and related material from the rail corridor, dismantle any rail-related structures within the corridor, and dispose of the right-of-way. The Board's approval of this abandonment and discontinuance of service is considered an undertaking under Section 106 of the National Historic Preservation Act (NHPA) and is thus covered under its provisions.

The Board's Office of Environmental Analysis (OEA) is responsible for ensuring the agency's compliance with the National Environmental Policy Act and NHPA. In consultation with the Texas Historical Commission (the SHPO), OEA has determined that a vertical lift span located on the Line is a historic property that is eligible for inclusion in the National Register of Historic Places as an example of an uncommon and distinctive bridge type. Designed by the firm Waddell & Harrington, the vertical lift span was originally constructed in 1912 over the St.

Francis River at Cody, Lee County, Arkansas as part of the St. Louis, Iron Mountain and Southern Railway. Although it was moved to its present location in 1967, OEA, the SHPO, and the railroad applicant believe that the move from its original location does not diminish the property's integrity or ability to convey historical significance.

Pursuant to the Advisory Council on Historic Preservation's regulations for implementing the Section 106 process of NHPA, we are notifying you that the proposed abandonment and discontinuance may adversely affect this historic resource. We are also inviting you to participate in the Section 106 consultation, although it does not appear that the criteria set forth in Appendix A to 36 C.F.R. Part 800 are met here. OEA has begun the consultation process and is developing a Memorandum of Agreement (MOA) with the SHPO, the railroad applicant, and other concerned parties, to mitigate the adverse effect of the proposed undertaking.

Pursuant to 36 C.F.R § 800.11, the following documents are enclosed for your review: (1) the Environmental and Historic Report submitted to OEA by the railroad, and (2) an Historic Resources Evaluation report prepared on behalf of UP describing the architectural and design features of the bridge and its historical context, (3) an Historic Summary Report prepared by OEA, which discusses the regulatory background applicable to the proposed undertaking, and (4) all correspondences to date between OEA, UP, and the SHPO pertaining to the proposed undertaking.

If you have any questions, require additional information regarding this proceeding, or have any concerns, please do not hesitate to contact Josh Wayland of my staff by telephone at (202) 245-0330 or by email at waylandj@stb.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Victoria Rutson". The signature is fluid and cursive, with a large initial "V" and "R".

Victoria Rutson, Director
Office of Environmental Analysis

**SURFACE TRANSPORTATION BOARD
WASHINGTON, DC 20423**

HISTORIC SUMMARY REPORT

Docket No. AB 33 (Sub-No. 324X)

**Union Pacific Railroad Company—Abandonment Exemption—
in Harris and Chambers Counties, Texas**

BACKGROUND

Union Pacific Railroad Company (UP) intends to file with the Surface Transportation Board (the Board) a notice or a petition under 49 C.F.R. § 1152.50 seeking exemption from the requirements of 49 U.S.C. § 10903 to abandon and discontinue rail service over a line of railroad located in Harris and Chambers County, Texas. The rail line extends from UP Milepost 2.4 in Baytown to Milepost 4.63 at the Eastside of Cedar Bayou, a distance of 2.23 miles (the Line). A map of the Line is appended to this document. If the Board were to grant abandonment authority, UP would be able to salvage any track and related material from the rail corridor, dismantle any rail-related structures within the corridor, and dispose of the right-of-way.

The Board's Office of Environmental Analysis (OEA) is responsible for ensuring the agency's compliance with the National Environmental Policy Act and the National Historic Preservation Act (NHPA). OEA has prepared this report to summarize the information available to date regarding the prospective abandonment of the Line and its potential effects to historic properties listed in or eligible for listing in the National Register of Historic Places (the National Register). At such a time as UP requests abandonment authority from the Board, OEA would prepare an Environmental Assessment (EA) and, following a public comment period, a Final EA that would document OEA's final determinations and recommended environmental and historic mitigation measures. The purpose of this document is to provide parties interested in participating in the Section 106 process for this undertaking with relevant background information, including the Board's findings regarding the impact of the proposed abandonment on historic properties, the Board's regulatory authority to protect historic properties, potential alternatives to the proposed abandonment, and the process by which the Board proposes to mitigate impacts to historic properties from the proposed abandonment.

HISTORY OF THE LINE

Pursuant to the Board's environmental rules at 49 C.F.R. § 1105.7(b), UP submitted its combined Environmental and Historic Report to OEA and served the report on a number of

appropriate federal, state, and local agencies, including the Texas Historical Commission (the State Historic Preservation Officer or SHPO).¹

According to UP's Environmental and Historic Report, the Line was constructed in approximately 1968 by Missouri Pacific Railroad to serve a steel mill owned by U.S. Steel and located at Cedar Bayou. The steel mill closed permanently in 1988 and the site was redeveloped as the Cedar Point Industrial Park. There has been no local or overhead traffic over the Line for at least two years.

HISTORICAL STRUCTURES IN THE AREA OF POTENTIAL EFFECT

In railroad abandonment cases, OEA typically determines the Area of Potential Effect (APE) to comprise the rail right-of-way. Examples of historic properties may include bridges, culverts, depots, other rail-related structures, or, in some cases, the rail line itself. In this case, the rail line and most of the structures associated with it are less than 50 years old and do not appear to be of historical significance. There are three bridges on the Line, two of which were apparently constructed at the same time as the Line and appear to be of ordinary and common design and construction.

Railroad applicants seeking to abandon a rail have been delegated the authority to contact SHPOs before the Section 106 process under NHPA officially begins. By letter dated January 20, 2016, the SHPO responded to a request for scoping information about the Line from UP. In response, the SHPO noted that the third bridge, a vertical lift span bridge over Cedar Bayou (the Cedar Bayou Bridge), was originally constructed in 1912 over the St. Francis River at Cody, Arkansas as part of the St. Louis, Iron Mountain and Southern Railway and was moved to its current location in 1967. The SHPO asked that either OEA or UP evaluate the eligibility of the bridge for National Register listing.

UP complied with SHPO's request in its Environmental and Historic Report, where it concluded that no historic properties listed in or eligible for listing in the National Register would be affected by the proposed abandonment. UP explained that it reached this conclusion because none of the structures within the rail right-of-way, including the Cedar Bayou Bridge, have been in place for more than 50 years. UP reasoned that, although the Cedar Bayou Bridge was originally constructed in 1912 (104 years ago), it has been in place in its current location for only 49 years and therefore does not meet the criteria for being "in place for 50 years."

By letter dated April 20, 2016, the SHPO submitted additional comments stating that, although the Bridge was moved to its current location in 1967, the structure may be eligible for listing in the National Register. The SHPO notes that, although location is one of the seven

¹ The Environmental and Historic Reports are available for viewing on the Board's website at www.stb.dot.gov by going to "E-Library," selecting "Filings," and then conducting a search for AB 33 (Sub-No. 324X).

aspects of historic integrity, structures relocated from their original location may be eligible for listing in the National Register if they meet Criteria Consideration B: Moved Properties of the National Register criteria of eligibility and are significant primarily for their architectural or engineering value. The SHPO requested that the Board consult with the SHPO to make a determination regarding the eligibility of the Bridge for listing in the National Register.

After receiving the SHPO's comments, UP engaged Summit Envirosolutions, Inc. (Summit) to undertake a Historic Resources Evaluation of the Cedar Bayou Bridge. According to the evaluation report, which has been provided to the SHPO and has been made available to the public on the Board's website at www.stb.dot.gov, the bridge was designed by the firm Waddell & Harrington, whose principals were prominent bridge engineers in the early twentieth century and among the foremost designers of vertical lift span bridges during that period. Because only nine vertical lift span bridges are known to have been built nationwide prior to 1912, the Cedar Bayou Bridge is an early example of this bridge type and was an example of an unusual bridge type in its original location in Arkansas. In its current location, the bridge is a rare extant example of the bridge type, as it may be other only existing example of a pre-World War II vertical lift span bridge in Texas.

The Historic Resources Evaluation report concluded that the Cedar Bayou Bridge may be eligible for listing in the National Register under Criterion C, as a rare extant example of a vertical lift truss span dating from the early twentieth century. The report also concluded that the bridge meets Criteria Consideration B: Moved Properties because it retains excellent integrity of materials, design and workmanship; its major features are of original materials and those components that have been replaced are similar to the originals. Because it remained in use as a railroad crossing following its relocation, the bridge also retains integrity of feeling, association, and setting in its current location, according to Summit. OEA has not been made aware of any information suggesting that the bridge is not serviceable for continued use as a rail bridge or that the structure presents a safety hazard or an obstacle to navigation.

After reviewing the available information provided by Summit and UP, and in consultation with the SHPO, OEA has determined that the Cedar Bayou Bridge is a historic property that is eligible for inclusion in the National Register under Criterion C as an example of an uncommon and distinctive bridge type. Although it was moved to its present location in 1967, OEA concurs that the move from its original location does not diminish the property's integrity or ability to convey historical significance and that the structure therefore meets Criteria Consideration B for moved properties.

EFFECTS ON HISTORIC PROPERTIES

By letter dated July 27, 2016, the SHPO informed UP that, based on its review of the Historic Resources Evaluation report prepared by Summit, the SHPO believes that the demolition of the Bridge would constitute an adverse effect on a historic property eligible for

listing in the National Register. By letter dated August 12, 2016, Summit, on behalf of UP, requested that the Board make a determination of adverse effect to a historic property and inform the SHPO and the Advisory Council on Historic Preservation (ACHP) of the adverse effect in order to move forward with the Section 106 process. OEA has determined that abandonment of the Line would result in an adverse effect to the historic property because, should the Board grant abandonment authority, UP would be authorized to remove the Cedar Bayou Bridge.

ALTERNATIVES TO ABANDONMENT

Alternatives to proposed railroad abandonments include rejection, discontinuance of service without abandonment, and continued operation by another operator. Under any of those alternatives, the Line would not be abandoned and no adverse effect to historic properties listed in or eligible for listing in the National Register would occur.

In cases where a line of railroad has been out of service and there are no shippers located on the rail line proposed for abandonment, denial of abandonment is rare and must be based on extraordinary economic need for the continued service over the line. The Board cannot deny authority for a railroad to abandon a rail line solely on the grounds that it would adversely affect historic resources.²

Historic properties associated with rail line are sometimes preserved through the conversion of the rail line into a multiuse trail under the interim trails use (railbanking) provisions of the National Trails System Act (Trail Act).³ Under the Trails Act, railbanking is a voluntary agreement between a railroad company and a trail sponsor, which may be a private organization or a governmental organization. Once an agreement is reached between the parties, the abandonment is held in abeyance and the rail corridor is preserved until such a time as the line is reactivated for rail service.

The Board's role under the Trails Act is ministerial.⁴ The Board cannot require that a railroad enter into a trail use agreement or specify the terms of that agreement.⁵ In the present case, OEA believes that currently, there are no plans for UP to enter into trails use negotiations with any potential trail use sponsor.

MITIGATION OF ADVERSE EFFECTS

The Board's ability to protect historic properties is limited. With respect to rail line abandonments, the Board can impose historic preservation conditions only to the extent that the particular property is owned by the railroad seeking abandonment—either full ownership in fee

² See Implementation of Environmental Laws, 7 I.C.C.2d 807, 828-29 (1991).

³ See 16 U.S.C. § 1247(d).

⁴ See Goos v. ICC, 911 F.2d 1283, 1295 (8th Cir. 1990).

⁵ See Georgia Great S. Div.—Aban. & Discontinuance Exemption—Between Albany & Dawson, in Terrell, Lee & Dougherty Counties, Ga., 6 S.T.B. 902, 907 (2003).

or a long-term interest in the property—and the property has a sufficient nexus to the proposal under review. When the Board imposes historic preservation conditions on a particular property, the Board cannot force the applicant to sell off or donate its property, or impose a restrictive covenant upon the deed. Documentation of the historic resources, which may include taking photographs or preparing a history before they are altered or removed, is generally the only form of nonconsensual mitigation the Board can impose.

Although the Board has limited authority to protect historic properties, if the consulting parties agree to undertake additional mitigation beyond what the Board may require, such consensual mitigation can be incorporated into a memorandum of agreement (MOA) or, more rarely, a programmatic agreement (PA). The execution of a PA or MOA completes the Section 106 process for Board actions that may adversely affect historic properties.

A signatory to an MOA or PA has full legal rights under the agreement and can make amendments or terminate the agreement where such provisions are included. Concurring parties who sign agreement documents only do so to note their agreement or concurrence with the document, but have no legal authority under the agreement to make changes or objections of any kind.⁶ The signatories to an MOA or PA generally consist of OEA, the railroad applicant, and the SHPO or THPO. ACHP may also be signatory to an MOA or PA if it has entered the Section 106 process for a particular Board action. OEA may also include other signatories at its discretion.

CONCLUSIONS

Because UP has not requested abandonment authority from the Board in this proceeding, there is currently no federal action before the Board that would constitute an undertaking requiring Section 106 review. At such a time as UP requests abandonment authority from the Board, OEA would issue an EA that would analyze the potential impacts of the proposed abandonment to the environment and to historic resources listed in or eligible for listing in the National Register, including the Cedar Bayou Bridge. The EA would be made available to the public on the Board's website at www.stb.dot.gov. In order to facilitate public comment, all relevant correspondences and submissions are also posted publically to the Board's website.⁷ In the present case, these include the Environmental and Historic Report submitted by UP, the Historic Resources Evaluation Report prepared by Summit, and the comments submitted by the SHPO and other agencies, all of which are available on the Board's website.

Following a public comment period, OEA would issue a Final EA. If, at the time of the issuance of the Final EA, an MOA has been executed regarding the Cedar Bayou Bridge, and provided that no additional historic properties are identified during the public comment period, then OEA would consider the Section 106 process to have been completed. If, however, new

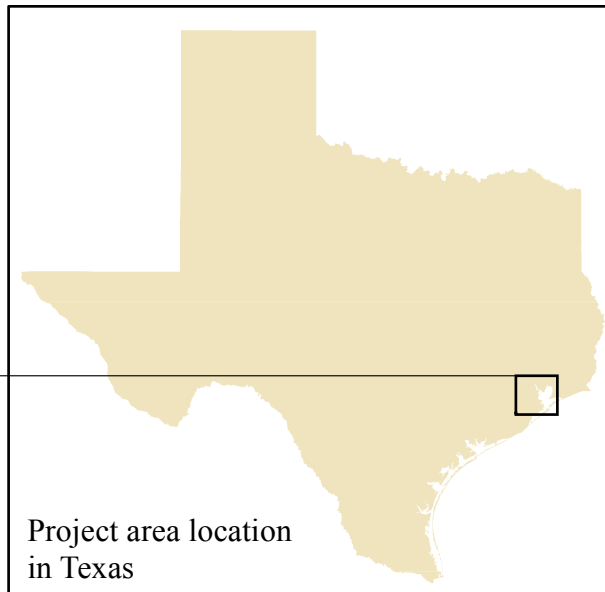
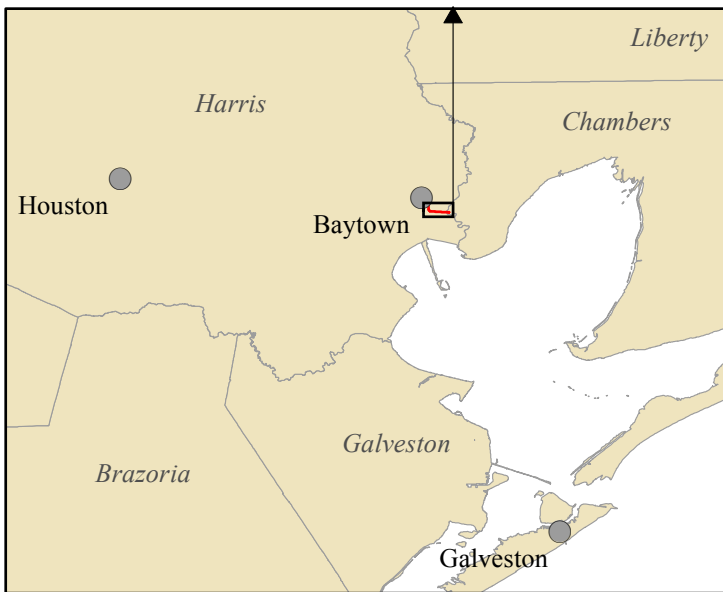
⁶ See 36 C.F.R. § 800.6(c)

⁷ See 49 C.F.R. § 1105.7

information is revealed regarding historic properties other than the Bridge, OEA would recommend the imposition of a condition that would prevent UP from consummating the abandonment until impacts to those properties can be assessed.

Based on the information available to date, OEA has determined that, if UP should request abandonment authority from the Board, the abandonment of the Line as described in UP's Environmental and Historic Report would result in an adverse effect to the Cedar Bayou Bridge, a historic property that is eligible for listing in the National Register. OEA intends to inform the SHPO and ACHP regarding this potential adverse effect and to invite those agencies and other concerned parties to participate in drafting a MOA that would specify the specific mitigation measures to be taken by UP prior to beginning any potential salvage activity associated with the abandonment.

AB 33 (Sub-No. 324X)
Abandonment Exemption
in Harris and Chambers Counties, Texas



Historic Resources Evaluation of the Cedar Bayou Bridge for the U.S. Steel Industrial Lead Abandonment, Harris and Chambers Counties, Texas

Submitted to
Union Pacific Railroad Company

Submitted by
Summit Envirosolutions, Inc.



**HISTORIC RESOURCES EVALUATION FOR THE
US STEEL INDUSTRIAL LEAD ABANDONMENT
BAYTOWN, HARRIS AND CHAMBERS COUNTIES, TEXAS**

STB Docket No. AB-33 (Sub-No. 324X)

Submitted to:

Union Pacific Railroad Company
1400 Douglas Street
Omaha, NE 68179-1580

Submitted by:

Summit Envirosolutions, Inc.
1217 Bandana Boulevard North
St. Paul, Minnesota 55108

Principal Investigator

Andrew J. Schmidt

Report Authors:

Sara Nelson and Andrew J. Schmidt

July 2016

MANAGEMENT SUMMARY

The Union Pacific Railroad Company (UP) proposes to file with the Surface Transportation Board (STB) for authority to abandon a segment of the U.S. Steel Industrial Lead (Line). The segment is 2.23 miles of railroad right-of-way between Milepost 2.4 and Milepost 4.63 including the bridge at Cedar Bayou in Harris and Chambers Counties, Texas. The right-of-way is currently inactive. The UTM's for the proposed abandonment are: 15N, 311820.4 E, 3288987.0 N (east end) and 309410.0 E, 3290152.5 N; (west end) (Figure 1). The UTM for the Cedar Bayou Bridge is 15N, 311810.8 E; 3288995.7 N.

As part of its responsibility to comply with Section 106 of the National Historic Preservation Act (16 USC 470) and its implementing regulations (36 CFR 800), UP sought comment on behalf of STB from the Texas State Historic Preservation Officer, who also serves as Director of the Texas Historical Commission (THC). Staff from the THC responded that the vertical lift span carrying the Line over Cedar Bayou may be a historic property and requested that UP evaluate the property for eligibility for listing in the National Register of Historic Places (National Register). To comply with this request, UP contracted with Summit Envirosolutions, Inc. (Summit) to prepare a historical evaluation report for the bridge.

In preparing the historical report, the Summit Principal Investigator reviewed bridge studies in Texas and other states, reviewed the history of the Cedar Bayou Bridge, and applied the National Register criteria of significance and integrity. Because it appeared to be a rare bridge type, and because the structure had been moved, the focus of the study was the bridge's significance for engineering under Criterion C, as well as Criteria Consideration B: Moved Properties.

The Line was built in 1967-1968 by the Missouri Pacific (MoPac) Railroad, which was effectively merged with UP on December 22, 1982 connecting the Missouri Pacific in Baytown with the new U.S. Steel plant. The railroad line itself is less than 50 years old and does not appear to have exceptional significance, and therefore, it is recommended as not eligible for listing in the National Register. The Cedar Bayou Bridge, which includes a vertical lift span, is recommended as eligible for listing in the National Register under Criterion C, as a rare extant example of a vertical lift truss span dating from the early twentieth century, while meeting Criteria Consideration B: Moved Properties.

TABLE OF CONTENTS

MANAGEMENT SUMMARY	i
TABLE OF CONTENTS	ii
LIST OF FIGURES	iii
1.0 INTRODUCTION.....	1
2.0 METHODS	3
2.1 METHODOLOGICAL OVERVIEW.....	3
2.2 CONSULTATION	3
3.0 LITERATURE SEARCH RESULTS	6
3.1 PREVIOUS INVESTIGATIONS	6
3.3 HISTORIC CONTEXTS	7
3.4.1 Development of Truss Bridges and Movable Spans.....	7
3.4.2 Missouri Pacific Railroad.....	10
4.0 RESULTS.....	12
4.1 DESCRIPTION.....	12
4.2 HISTORICAL BACKGROUND	16
4.3 EVALUATION	18
5.0 SUMMARY AND RECOMMENDATIONS	22
6.0 REFERENCES.....	23

LIST OF FIGURES

FIGURE 1. PROJECT LOCATION	2
FIGURE 2. AREA OF POTENTIAL EFFECTS	5
FIGURE 3. CEDAR BAYOU BRIDGE, LOOKING SOUTH	13
FIGURE 4. CEDAR BAYOU BRIDGE, LOOKING SOUTH	13
FIGURE 5. CEDAR BAYOU BRIDGE, LOOKING SOUTHWEST	14
FIGURE 6. VIEW OF GIRDER SPANS AND LIFT TOWER, LOOKING SOUTHWEST	14
FIGURE 7. VIEW OF GIRDER SPANS AND LIFT TOWER, LOOKING WEST.....	15
FIGURE 8. VIEW OF DECK AND LIFT TOWER, LOOKING EAST.....	15
FIGURE 9. DRAWING OF LIFT TOWERS, COUNTERWEIGHTS, AND LIFT MECHANISM FOR 1912 CONSTRUCTION	17
FIGURE 10. ELEVATION DRAWING FOR 1912 CONSTRUCTION	17

1.0 INTRODUCTION

The Union Pacific Railroad Company (UP) proposes to file with the Surface Transportation Board (STB) for authority to abandon a segment of the U.S. Steel Industrial Lead (Line). The segment is 2.23 miles of railroad right-of-way between Milepost 2.4 and Milepost 4.63 including the Bridge at Cedar Bayou in Harris and Chambers Counties, Texas (Figure 1). The right-of-way is currently inactive.

Because the STB has regulatory authority over railroad abandonment projects, this project must comply with Section 106 of the National Historic Preservation Act (16 USC 470) and its implementing regulations (36 CFR 800). UP, on behalf of the STB, has begun consultation with the Texas State Historic Preservation Officer, who also serves as Director of the Texas Historical Commission (THC). In a letter dated April 20, 2016, staff from the THC responded that the vertical lift span carrying the Line over Cedar Bayou may be a historic property and requested that UP evaluate the property for eligibility for listing in the National Register of Historic Places (National Register). To comply with this request, UP contracted with Summit Envirosolutions, Inc. (Summit) to prepare a historical evaluation report for the bridge.

The UTM's for the proposed abandonment are: 15N, 311820.4 E, 3288987.0 N (east end) and 309410.0 E, 3290152.5 N; (west end) (Figure 1). The UTM for the Cedar Bayou Bridge is 15N, 311810.8 E; 3288995.7 N.

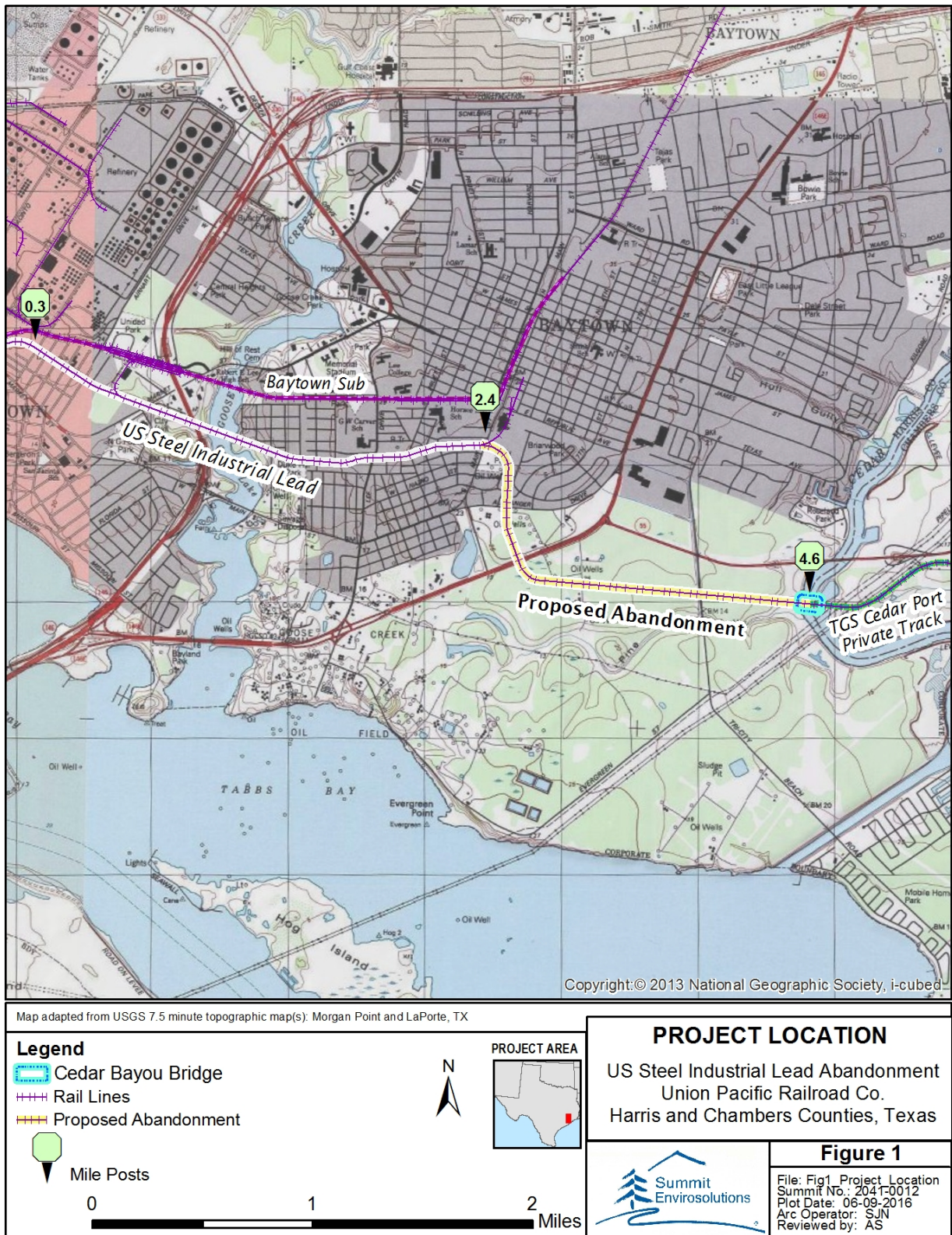


Figure 1. Project Location

2.0 METHODS

2.1 Methodological Overview

The intent of the historical study was to conduct a historic resources evaluation to establish the National Register eligibility of the Cedar Bayou Bridge within the portion of the U.S. Steel Industrial Lead right-of-way covered by the proposed abandonment. To complete the historical evaluation, the Principal Investigator applied the National Register criteria of eligibility, which are defined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

A. that are associated with events that have made a significant contribution to the broad patterns of our history; or

B. that are associated with the lives of persons significant in our past; or

C. that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. that have yielded, or may be likely to yield, information important in prehistory or history.

Because the vertical lift span and two approach spans of the Cedar Bayou Bridge were moved from their original location to the current location in 1967, the evaluation focused on Criterion C for potential significance in the area of engineering as a type, period, or method of construction. Furthermore, the property was evaluated under Criteria Consideration B: Moved Properties. In addition to the significance criteria, the bridge was evaluated for historic integrity. A property has historic integrity when it retains most of the following seven aspects: location, materials, design, workmanship, setting, feeling, and association.

2.2 Section 106 Consultation

On January 6, 2016, UP initiated Section 106 consultation with THC regarding the proposed abandonment on behalf of STB, as authorized in a memo from STB dated December 10, 2009 and in 36 CFR 800.2(c)(4). Staff from THC commented on January 20, 2016, that, although the Cedar Bayou Bridge was moved to its current location in 1967, it was originally constructed in 1912, and therefore, a historical evaluation of the bridge was warranted. No other structures over 50 years old were identified within the abandonment area. In additional correspondence dated April 20, 2016, THC staff reiterated their request that the Cedar Bayou Bridge be evaluated for National Register eligibility. This historical report addresses that request.

In the correspondence and in a telephone conversation with THC staff (personal communication with Justin Kochritz, May 30, 2016), no additional historical evaluations were requested beyond the Cedar Bayou Bridge. Furthermore, because no other structures on the U.S. Steel Industrial Lead are older than 50 years, only the Cedar Bayou Bridge (including the vertical lift structure, supporting towers, and approach spans, all dating from 1912) is evaluated for National Register eligibility.

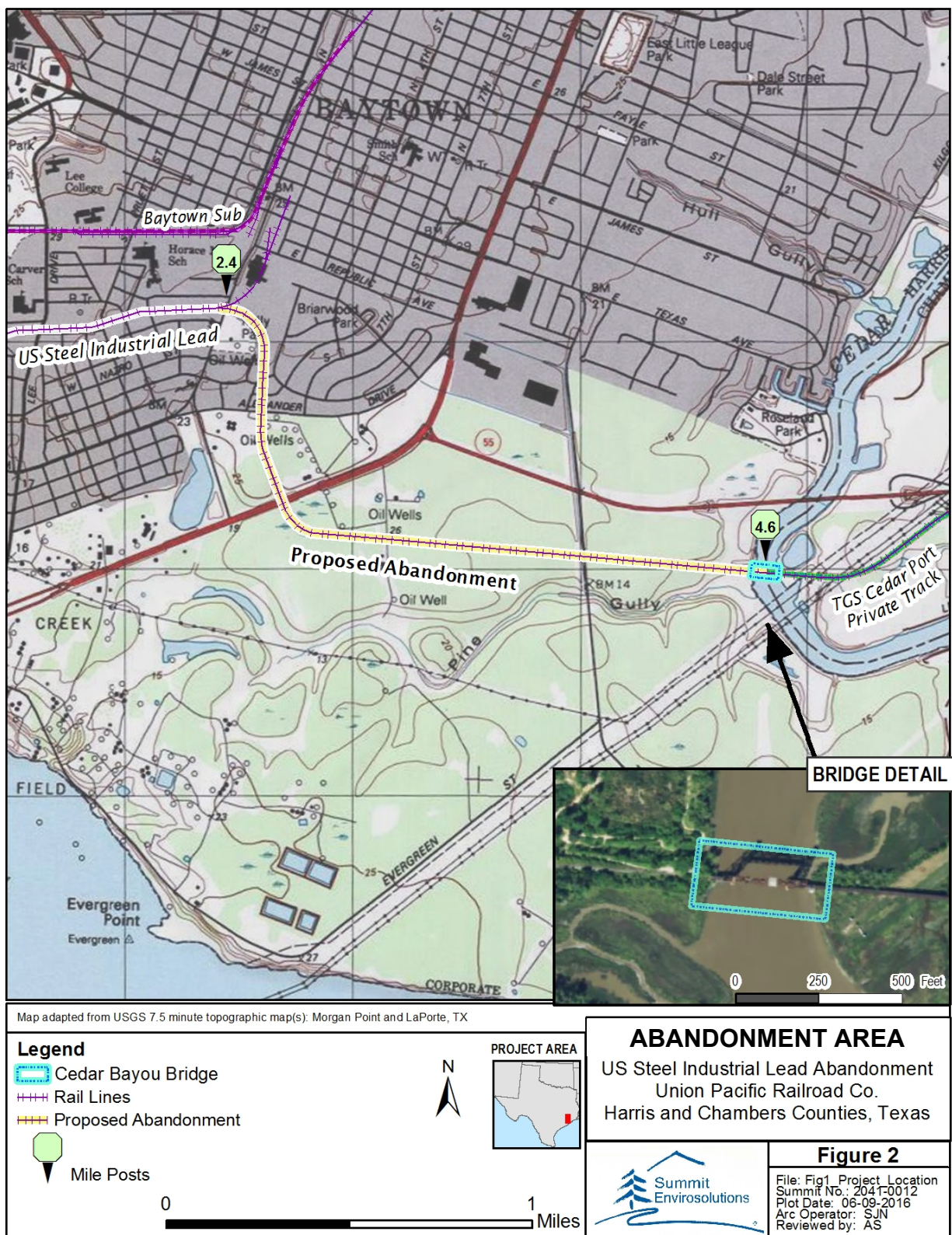


Figure 2. Abandonment Area with Bridge Detail

3.0 LITERATURE SEARCH RESULTS

3.1 Previous Investigations

The following is a discussion of the bridge studies that were utilized in the evaluation of the Cedar Bayou Bridge.

“Historic Road Infrastructure in Texas MPDF:” This study, recently completed by the Texas Department of Transportation, provides statewide historic contexts, including “Historic Bridges of Texas, 1866-1965,” identifies historic bridge types, and establishes National Register eligibility requirements for bridges (Jensen 2015).

Studies prepared for the New Jersey Department of Transportation prior to the removal of the Wittpenn Bridge over the Hackensack River documented the Hackensack River Vertical Lift Bridges Historic District. This proposed historic district was composed of four consecutive vertical lift bridges that were built in 1928-1930 to replace earlier swing span bridges.

“A Context for Common Historic Bridge Types:” This study, sponsored by the National Cooperative Highway Research Program, identified bridge types that “are very common and those that are much less common” and evaluated the technological and historical significance of those types. In assessing vertical lift bridges, this study stated that:

These bridges [vertical lift spans] are less common than many of the bridge types described in this study and, if the structures possess their character-defining features, they possess a high level of significance within the context of this study. Character-defining features include two towers, the lift span (which will possess the character-defining features of the relevant span type), drive machinery, cables, pulleys, counterweight and piers or abutments. Another feature that may be considered character-defining is the operator’s house (Parsons Brinkerhoff and Engineering and Industrial Heritage 2005: 3-121).

Statewide MPDFs have been completed for historic bridges in Arkansas (1989) and Nebraska (1991). Both studies noted the rarity of vertical lift spans and evaluated them as a significant bridge type. The Arkansas document identified only two examples of extant vertical lift bridges in the state, describing them as “significant contributors to the historic landscape of the state” (Bennett et al. 1989: F-7). In the Nebraska study under the Metal Truss Highway Bridges property type, a consideration for eligibility was a bridge with a “design utilizing new technology or technology rarely used in Nebraska,” such as a vertical lift span (Roise 1991: F-46).

In addition to context studies, a number of individual vertical lift span bridges have been documented for National Register listing and Historic American Engineering Record (HAER) documentation.

- Snowden Bridge (1913), Richland County, MT; (HAER) No. MT-27. This bridge, designed by Waddell & Harrington, includes a 296-foot riveted Parker through truss and three 267-foot fixed riveted Parker through truss spans. The bridge carried a Great

Northern railroad line over the Missouri River, and at the time it was built, it was the longest vertical lift span and had the second largest clear opening of any movable bridge.

- City Waterway Bridge (1911), Pierce County, WA; National Register-listed in 1982 in Historic Bridges/Tunnels in Washington State Thematic Resource; HAER No. WA-100. This bridge, designed by Waddell & Harrington, includes a 214-foot riveted Pratt through truss vertical lift span flanked by two 190-foot riveted fixed Pratt truss spans. The bridge was built across the City Waterway to connect Tacoma's business and industrial districts.
- White River Bridge at De Valls Bluff (1924), Prairie County, AR; National Register-listed in 1990, Historic Bridges of Arkansas Multiple Property Submittal (MPS); HAER No. AR-21. This bridge, designed by Harrington, Howard & Ash, includes a 204-foot riveted Pratt through truss vertical lift span flanked by two 201-foot riveted Pratt through truss spans.
- Meridian Bridge (1924), Cedar County, NE; listed in the National Register in 1991 and included in Highway Bridges in Nebraska MPS (1993). This bridge, designed by Harrington, Howard & Ash, includes a 250-foot riveted Pratt through truss vertical lift span and additional Pratt through truss spans. The trusses were designed as double-deck spans for both railroad and automotive traffic and, in 1953, converted to two one-way automotive decks. Although there were alterations in 1983 to some of the bridge's character-defining features, including removal of the lift machinery, cables, and counter weights as well as the operator's house, the bridge was.
- Sacramento River (Tower) Bridge (1936), Sacramento County, CA; National Register-listed in 1982; HAER No. CA-73. This bridge, designed by Alfred Eichler, includes a 209-foot Pratt through truss vertical lift span with a rare use of Streamline Moderne styling in the lift towers.
- Neches River Bridge (1941), Beaumont, Jefferson County, TX; National Register eligible. This bridge includes a 239-foot Warren-with-verticals through truss vertical lift span.

3.3 Historic Contexts

3.4.1 Development of Truss Bridges and Movable Spans

Metal Truss Bridges

The engineering principles underlying the development of metal truss systems for railroad traffic during the mid-nineteenth century were based on the same principles that led to the development of earlier wooden truss systems. Although metal railroad trusses were more stoutly designed to resist the heavy live loads associated with railroad traffic, the truss types developed by pre-railroad engineers and the configuration of their posts, chords, and bracing elements remained essentially unchanged. Typically, fixed metal bridges were installed at permanent river crossings, and utilized a variety of truss types, the most common of which were the Howe, Pratt, and Warren varieties. Trusses of all varieties could be constructed as *through trusses* (in which traffic passes between the bridge's main girder panels and under a series of cross-bracing elements tying the panels together); *pony trusses* (in which traffic passes between the bridge's main girder panels, but the main girders are not situated high enough to warrant the use of an upper portal brace); and *deck trusses* (in which traffic loads rest directly on the top surfaces of the main girders).

After 1840, Howe truss bridges became an early standard truss for use on railroads. Howe trusses have inclined portal posts, with vertical members in tension and a set of mirrored diagonal members in compression. Additional diagonal members may be present to cross-brace each truss panel. The Pratt truss, patented in 1844, has vertical members in compression and diagonal members in tension. Early examples of this type have inclined portal posts, intermediate posts, hip verticals, and bottom chord joints with pin and eyebar connections. Riveted joints became common during the early twentieth century, and welded joints were typical after World War II. Variants of the Pratt truss include the Parker or camelback truss (with a single slanted upper chord in the panel medial to each portal strut), the Baltimore truss (with additional vertical and diagonal bracing in the bridge panels), and the Pennsylvania or Petit truss (combining elements of the Parker and Baltimore variants). The Warren truss, which was patented in 1848, typically has inclined portal posts and diagonals which carry both compressive and tensile forces. The Subdivided Warren variant adds vertical beams to help brace the triangular web system. Warren trusses may also have arched, polygonal upper chords.

Metal truss bridges and viaducts built of iron or wrought iron typically predate the mid-1890s. After that date, most metal trusses were constructed of steel. Steel trusses built during the period between circa 1894 and 1900 were early examples of the use of the material and represent an important transitional type of design and construction. The pin-connected Pratt truss and riveted Warren truss were the most common truss bridges constructed on railroad lines during the late nineteenth and early twentieth centuries.

Movable-Span Bridges

By the early twentieth century, there were three primary movable bridge types in the United States, the swing span, the bascule, and the vertical lift span. Swing spans, which are bridges that pivot in a horizontal plane about a central pier, were developed during the mid-nineteenth century to cross navigable waters. With spans that rotated horizontally, swing-span bridges had unlimited vertical clearance; the central pier, however, created a potential navigation hazard. Because the tall-masted narrow ships common during the mid-nineteenth century required high vertical clearance but not wide navigation channels, swing-span bridges were a suitable solution (Nyman 2002: 1).

By the late nineteenth century, as ships grew larger (i.e. wider) and shifted from sail to steam power (eliminating the tall masts), wider navigation channels than provided by swing spans were needed. In addition, passage of the federal Rivers and Harbors Act of 1890 increased restrictions on obstructions to navigation and required approval by the U.S. Army Corps of Engineers prior to the construction of potential obstructions. As a result, during the early twentieth century, two bridge types, the bascule and vertical lift, became the most common movable bridges. Both types of bridges eliminated the obstruction to navigation caused by the center pier and could open and close more quickly than swing spans, reducing delays to water and land traffic. A bascule bridge has a movable span with a trunnion or a roller on one end, and the span moves in a vertical plane about the trunnion or roller. A variation is the double leaf bascule with a trunnion or roller on both ends and a break in the middle of the span (Hool and Kinne 1943: 1, 20).

In 1872, Squire Whipple patented a small-scale vertical lift bridge designed to cross canals and small streams where high vertical clearance was not required. The first large-scale vertical lift bridge was designed and patented by John Alexander Low Waddell in 1893 to cross the Duluth, Minnesota, ship canal. Although this bridge was not built, Waddell produced a similar design to cross the Chicago River at South Halsted Street in Chicago, and this bridge was built in 1894. This bridge had a 130-foot Pratt truss lift span that could be raised to a height of 155 feet. Although there were flaws in Waddell's initial design, he and John Lyle Harrington would partner to produce much improved designs, resulting in at least 24 bridges built to the designs of Waddell & Harrington during 1907-1914 (Nyman 2002: 6, 13).

The typical vertical lift bridge built during the early twentieth century could be described as: "...composed of two towers located on either side of a waterway, with a truss span between. The truss span is lifted by cables that are attached at the ends of the span and run over pulleys [also known as sheaves] at the tops of the towers down to counterweights on vertical runways within the towers. The truss remains in a horizontal position throughout the operating cycle, and can be raised far enough to provide clearance for the largest ships or boat" (Parsons Brinkerhoff and Engineering and Industrial Heritage 2005: 3-121).

Waddell and Harrington were the most prominent designers of vertical lift bridges during the early twentieth century, both during their partnership and with their subsequent firms after Waddell & Harrington dissolved in 1914. Although Waddell and Harrington did not invent the fundamental elements of the bridge type, they adapted the principles for "relatively inexpensive low-level railroad bridges across navigable waterways" (Layton 1976: 697).

J.A.L. Waddell and J.L. Harrington

Waddell was born in Port Hope, Ontario, in 1854, and studied engineering at Rensselaer Polytechnic Institute, graduating in 1875. After a series of jobs, including design work for the Government of Canada, Canadian Pacific Railroad, and a coal mining company in West Virginia, Waddell was hired in about 1880 as the chief engineer of the bridge building firm Raymond & Campbell in Council Bluffs, Iowa. In 1887, Waddell formed his own firm in Kansas City, Missouri, and although initially he often partnered with the Phoenix Bridge Company, after 1892 he worked independently of that firm. Although Waddell is perhaps best known for his pioneering designs for the Duluth ship canal and the South Halsted Street Bridge, he also designed numerous truss, suspension, and arched fixed-span bridges, as well as swing spans and bascules (Nyman 2002: 2-3).

Waddell has been credited with the design of 74 vertical lift bridges (Nyman 2002: 12). During his long career, Waddell was the sole owner or senior partner of numerous firms:

- J.A.L. Waddell (1887-1898)
- Waddell & Hedrick (1899-1907)
- Waddell & Harrington (1907-1914)
- Waddell & Son (1915-1920)
- J.A.L. Waddell (1921-1926)
- Waddell & Hardesty (1927-1945)

After Waddell died in 1938, his last firm continued for another seven years until 1945, when it was reorganized as Hardesty & Hanover.

Harrington was born in Lawrence, Kansas, in 1868 and studied engineering at the University of Kansas, graduating in 1895. Prior to graduation, Harrington completed an internship with Waddell, and the two remained in contact. While working as the chief engineer and manager of the Locomotive and Machine Company in Montreal, Harrington completed a second Bachelor's degree and a Master's degree at McGill University. Although Waddell had designed the first modern vertical lift bridge in 1893, the lift mechanism and other aspects needed improvement. After Harrington replaced Ira Hedrick as Waddell's partner in 1907, he utilized his background in mechanical engineering to develop more successful lift-bridge designs, refining the design of nearly every component and changing from steam to electric power. Together Harrington and Waddell established a successful partnership for the design and construction of bridges, and they were awarded four joint patents between 1909 and 1913 (Brown 1989; Layton 1976: 697).

After Waddell & Harrington dissolved in 1914, Harrington formed the firm of Harrington, Howard & Ash. This firm was very active in bridge design, especially lift bridges, and Harrington was a partner until 1928 when he left to form Harrington & Cortelyou with Frank Cortelyou. This firm continued to operate after Harrington's death in 1942, and it is currently a subsidiary of Burns & McDonnell. In 1928 Harrington's former partners formed the firm Howard, Needles, Tammen & Bergendoff, which became HNTB Corporation (Brown 1989).

3.4.2 Missouri Pacific Railroad

The Missouri Pacific Railroad, originally chartered as the Pacific Railroad in 1849, was one of the first railroads west of the Mississippi River when it began building west from St. Louis in 1851. The Pacific Railroad reached present-day Kansas City in 1865. The railroad struggled financially, however, and in 1872, the company was reorganized as the Missouri Pacific Railway. In 1879, this company was in turn acquired by financier Jay Gould, who owned numerous railroad companies operating in Arkansas, Texas, Louisiana, Nebraska and Colorado.

Another predecessor line to the Missouri Pacific Railroad was the St. Louis, Iron Mountain and Southern Railway (Iron Mountain). Originally chartered as the Cairo and Fulton in Missouri in 1851 and in Arkansas in 1853, the railroad company began building south from St. Louis in 1856 and reached Desoto, Missouri, the following year. Slowed greatly by the Civil War and financial insolvency, the company, reorganized as the St. Louis and Iron Mountain in 1867, finally reached the Missouri-Arkansas state line in 1872. Meanwhile, the Cairo and Fulton in Arkansas reorganized as the Cairo, Arkansas and Texas (CA&T) and completed its line from the Iron Mountain line to Little Rock in 1873 and to Texarkana in 1874. Also in 1874, the CA&T and the St. Louis and Iron Mountain merged to form the St. Louis, Iron Mountain and Southern. Despite the consolidation, the company continued to struggle financially, and in 1880, the Missouri Pacific acquired a controlling interest in the Iron Mountain. Over the next 30 years, the company would continue to operate as the Iron Mountain railroad and would build and acquire a network of lines in Arkansas and Texas (Condren 2014; Hodge 2012).

During the 1870s, multiple smaller independent railroad companies established railroad networks in eastern Texas, and Houston/Galveston became a railroad hub as well as a shipping port. Over

the next decade after 1880, the railroad mileage in Texas would nearly triple, from 2,400 miles to over 6,400. In addition, during the 1880s, many of the independent lines were acquired or controlled by outside interests and were consolidated into railroad systems, including the Southern Pacific and the Atchison, Topeka and Santa Fe (Santa Fe). Jay Gould expanded his railroad network into Texas by gaining controlling interest in the Texas and Pacific, the International and Great Northern, and the Missouri, Kansas and Texas, which he then leased to his Missouri and Pacific. Although the leases were terminated by the end of the decade, Gould and his son George maintained control of the lines until the early twentieth century (Werner 2010).

During the early twentieth century, railroad companies built thousands of miles of railroad lines in Texas, reaching a peak of 17,078 in 1932. The Gould system broke up after 1915 when the Missouri Pacific Railway slipped into bankruptcy, and George Gould lost control of the company and the lines it controlled. In 1917, the company was reorganized as the Missouri Pacific Railroad, and the Iron Mountain was formally merged with the new company. During the 1920s, the Missouri Pacific acquired numerous railroads in Texas until, by 1932, 70 percent of the railroad mileage in Texas was controlled by the Missouri Pacific, the Santa Fe, and the Southern Pacific (Werner 2010).

4.0 RESULTS

4.1 Description

The project is the abandonment of a portion of the U.S. Steel Industrial Lead, formerly a Missouri Pacific Railroad corridor in Baytown (see Figure 1). The Cedar Bayou Bridge runs east-west across the Cedar Bayou and its flood plain approximately ¼ mile south of Highway 99.

The railroad corridor crosses the Cedar Bayou with the Cedar Bayou Bridge, a 853-foot long structure consisting of multiple spans, including a vertical lift span with approach spans that, combined, measure 313 feet in length (Figures 3-5). The main span with its lift towers and approach spans were built in 1912 and moved together to the current location in 1967. The vertical lift span consists of a 162-foot, through riveted-steel truss in Warren-with-verticals configuration, flanked by 118-foot steel lift towers. The two deck plate-girder approach spans each measure 75 feet. The main span is supported on concrete piers; the west approach span shares the west pier and rests on a concrete abutment on the west bank, and the east approach span rests on concrete pilings. East of the east approach span, 13 deck plate-girder spans resting on steel I-beam pilings extend 540 feet to an embankment (Figure 6). The decking of all spans consists of wood cross members, and a wood-plank catwalk with steel railing runs along the south side of the deck. The bridge substructure and the 13 deck plate-girder spans were built in 1967 when the Line was constructed. Each 118-foot steel lift tower rests on an approach span and consists of four columns braced together – two vertical front columns and two inclined rear columns (Figure 7). The towers are equipped with concrete counterweights and electric-operated pulleys. The electric motor is housed in a corrugated-steel, gable-roofed shed situated atop the lift-span truss. A shed-roofed maintenance shed is located approximately 50 feet west of the west approach span (Figure 8).

Although the lift mechanism and counterweights were replaced in 1967, the current materials and configuration of the lift system appear to be similar to the original. The operation of the lift span was described in 1912 as follows.

The lift span will be raised and lowered by eight wire ropes [cables] at each corner, which will pass up and over sheaves at the tops of the towers and are connected to two counterweights of concrete and steel, exactly balancing the span. The operating machinery, which is carried on top of the lift span at the center, consists of four spirally grooved drums, actuated through trains of gears by a gasoline engine. Each drum controls two operating ropes; the one at the top leads over a sheave at the corner of the span, thence downward, and is fastened near the bottom of the tower; the one from the bottom of the drum leads under the same sheave at the corner of the span, thence upward, and is fastened at the top of the tower. All four drums are similarly connected, and when they are revolved in one direction ropes leading to the tops of the towers are wound on and those connected to the bottoms of the towers are wound off, thus raising the span by the lifting force exerted on the corner sheaves. Reversal of direction of revolution of the drums lowers the span. Brakes with automatic stops control the movement of the span, and a hand brake is provided for manual control. The span may also be operated by hand in case of emergency (*Tradesman* 1912: 33).



Figure 3. Cedar Bayou Bridge, Looking South



Figure 4. Cedar Bayou Bridge, Looking South



Figure 5. Cedar Bayou Bridge, Looking Southwest



Figure 6. View of Girder Spans and Lift Tower, Looking Southwest



Figure 7. View of Girder Spans and Lift Tower, Looking West



Figure 8. View of Deck and Lift Tower, Looking East

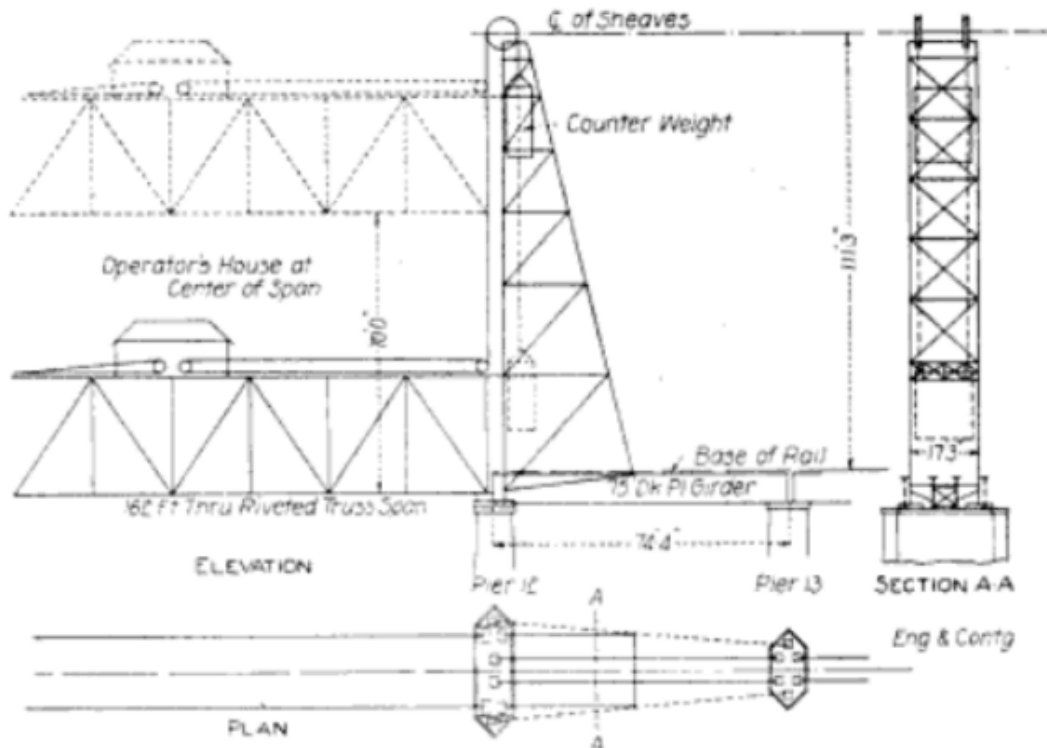
4.2 Historical Background

The Cedar Bayou Bridge includes a vertical lift span that was originally constructed in 1912 over the St. Francis River in Cody, Lee County, Arkansas. The bridge carried a railroad line of the St. Louis, Iron Mountain and Southern Railway (Iron Mountain; Missouri Pacific Railroad after 1917). This railroad line was first contemplated in 1903 to provide a more direct connection to Memphis from the south. By 1911, the railroad had acquired right-of-way and had begun grading for the tracks, but completion of the line was delayed by the St. Francis River crossing. The War Department (Army Corps of Engineers) objected to the bridge's proposed location immediately above a prominent bend in the river, and requested that a new location be chosen. When the railroad appealed, noting that the location had been previously approved and that considerable costs had been incurred, the War Department approved the location with the stipulation that the bridge be a movable span placed at a right angle to the river current (American Railway Engineering Association 1913: 236).

The new Iron Mountain railroad line crossed the St. Francis River between Marianna, Arkansas, and Memphis, Tennessee. During the early twentieth century, the St. Francis River was used by steamers with large tows, principally by the logging industry, which often transported four barges abreast. The proposed location of the Iron Mountain railroad bridge was approximately 30 miles upstream of the confluence with the Mississippi River, and therefore, maintaining shipping was a concern. By utilizing a vertical lift bridge design rather than a swing or bascule span, a wide navigation channel could be retained.

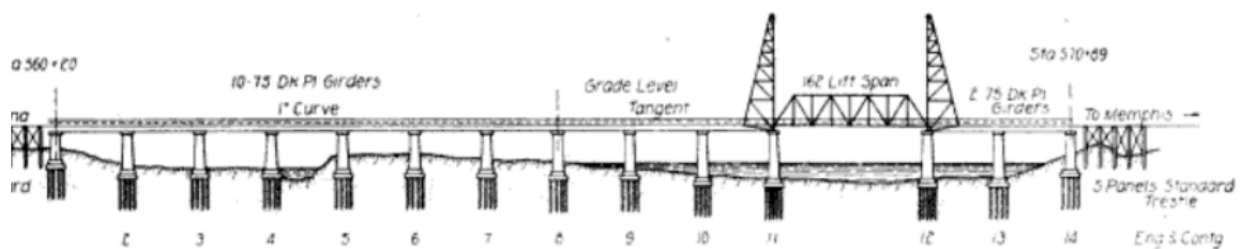
With its controlling interest in the Iron Mountain railroad, the Missouri Pacific Railway Company undertook the planning for the St. Francis River bridge construction, led by its bridge engineer C.E. Smith. The bridge was designed by Waddell & Harrington (see Section 3.4.1 above). The foundation work was completed by the Kansas City Bridge Company, and the bridge was fabricated and erected by the Virginia Bridge & Iron Company (Figure 9).

This vertical lift span bridge, when erected in 1912, consisted of “twelve single track deck plate girder spans, one single track through riveted vertical lift span, with towers, counterweights and operating machinery, all on concrete piers, and trestle approaches at each end” (*Tradesman* 1912: 33) (Figure 10). Each deck plate girder span was 75-feet long and weighed 450 tons. The full length of the bridge was 1,069 feet. The lift span, which rose to 70-feet above the high-water mark, was a 162-foot through riveted truss span, and was a near duplicate of an earlier bridge constructed by the Missouri Pacific, with “light alterations having been made to provide for the necessary attachments” (*Engineering and Contracting* 1913: 327-330). The span was operated by a 25-horsepower gasoline engine. It was typical in earlier vertical lift span bridges to “attach the tail legs of the lifting towers to masonry or to the hips of adjoining truss spans.” In order to create a more efficient design without the “extra expense of additional supports or of approach truss spans that would otherwise have been necessary, it was decided to support the tail legs of the towers on cantilever brackets extending out from the approach girders” (*Engineering and Contracting* 1913: 327-330). The design of the vertical lift span would have been appealing to the railroad because it “required relatively simple construction, small foundations, and [had] moderate power requirements” (Nyman 2002).



(Reprinted in *Engineering and Contracting* 1913: 329)

Figure 9. Drawing of Lift Towers, Counterweights, and Lift Mechanism for 1912 Construction



(Reprinted in *Engineering and Contracting* 1913: 328)

Figure 10. Elevation Drawing for 1912 Construction

Although the vertical lift span was rarely put into use, the bridge remained in operation until 1967, when the Missouri Pacific Railroad abandoned its line between Marianna and Memphis. Concurrently, the Missouri Pacific was building a new spur line near Baytown, Texas, to serve the U.S. Steel Texas Works steel mill, which was also under construction. The new steel mill was located on the east side of Cedar Bayou, whereas Baytown and the railroad connections were on the west side. Therefore, to build an industrial spur that would serve the plant, the Missouri Pacific Railroad needed to bridge Cedar Bayou, which was a navigable channel. As described by Missouri Pacific Railroad's chief engineer E.T. Franzen, "[the] spur track that we are building out of Baytown, Tex. required, by ruling of the Corps of Engineers, a high-level crossing or movable span. The high-level crossing was not economical, and fortunately, we had available in a line recently abandoned west of Memphis a 162-ft. lift span" (Franzen 1968: 505-510). Although it would require an 830-mile move of a 260-ton truss span, plus two 75-foot approach girder spans and the 118-foot towers, this move was still less costly than new construction. The spans and towers were floated on barges down the Mississippi River and across the Gulf of Mexico to the new location near Baytown. The lift span and approach spans were erected as part of an 853-foot long bridge.

Although the lift span, approach spans, and towers were moved, some elements of the Cedar Bayou Bridge were built in 1967: the substructure, the spans extending east of the east approach span, the counter weights, and the electric motor and its housing atop the lift span.

In 1982, UP acquired Missouri Pacific, including the spur line serving the U.S. Steel mill, although the merger did not become official until 1997 due to outstanding bonds of the Missouri Pacific. U.S. Steel operated the steel mill until 1986, and another manufacturer operated the mill for two more years. The steel mill shut down permanently in 1988 and was redeveloped as the Cedar Point Industrial Park. The railroad line has been inactive in recent years.

4.3 Evaluation

Bridges were necessary for railroad expansion, and that need was the catalyst for civil engineers to develop the structural mechanics of iron (and later steel) truss bridges during the last half of the nineteenth century. In addition, as railroad lines crossed navigable waterways, a movable span was needed if the crossing would have insufficient clearance for shipping. As discussed in the contexts above, three main types of movable spans developed during the late nineteenth and early twentieth centuries: the swing span; the bascule; and the vertical lift span. Although swing spans were most common during the nineteenth century, bascule and vertical lift generally replaced swing spans after 1910. The firm of Waddell & Harrington was an early leader in the design of vertical lift span bridges and was awarded several patents during the early 1910s.

Although a statewide study of railroad bridges has not been completed in Texas, a study of historic roadway infrastructure provides National Register eligibility requirements for roadway bridges in Texas. In "Historic Road Infrastructure of Texas," it is stated that, "Historically, the majority of movable bridges were located across major rivers and waterways in the eastern part of Texas. All of the major movable span bridges designed by THD [Texas Highway Department] before World War II were constructed over the Sabine River separating Louisiana from Texas" (Jensen 2015: F-257-258). Although this quotation references roadway bridges rather than railroad bridges, it indicates the relative rarity of movable spans in Texas. Regarding

vertical lift bridges, this same document highlights only two known extant vertical lift bridges carrying roadways in Texas, and both of them postdate World War II. Although the number of movable bridges in general and vertical lift spans in particular that were built for railroads is not known, it is expected that this property type is rare. In addition to the Cedar Bayou Bridge, one other vertical lift span railroad bridge is known to be extant in Texas, the Neches River Bridge in Beaumont.

“Historic Road Infrastructure of Texas” lists numerous considerations under which bridges may be eligible for listing in the National Register. The Cedar Bayou Bridge appears to meet three of those eligibility considerations: Early Use of a Bridge Type; Design, Fabrication, and Construction; and Period or Method of Construction.

Early Use of Bridge Type

“A bridge may be significant as an early example of its type” (Jensen 2015: F-260). Although the first modern vertical lift bridge was built on Halsted Street in Chicago in 1894, no more are known to have been built until 1909, by which time Waddell & Harrington were correcting the mechanical design flaws of the Halsted Street Bridge. Only nine vertical lift bridges are known to have been built nationwide prior to 1912 (Nyman 2002: 13). Because it was built in 1912, the Cedar Bayou Bridge represents an early example of the vertical lift span bridge type.

Design, Fabrication, and Construction

The significance of a bridge’s “design, fabrication, and construction are evaluated by an examination of length, special features or designs, innovations, and standardizations,” and one of the indicators of significance is “uncommon bridge type” (Jensen 2015: F-260). The Cedar Bayou Bridge is a vertical lift span, which was an uncommon bridge type when originally constructed in Arkansas and is currently a rare extant example of this type in Texas. Historic context studies, as well as a search of Bridgehunter.com, indicate that the Cedar Bayou Bridge may be the only extant example of a pre-World War II vertical lift span bridge in Texas.

Period or Method of Construction

An indicator of significance for Period or Method of Construction is the construction type of the bridge, specifically a rivet-connected bridge constructed before 1917 (Jensen 2015: F-220). The Cedar Bayou Bridge is an example of a rivet-connected metal truss built before 1917. Although the significance discussion regarding rivet connections is related to roadway bridges in Texas, it is expected that an all-riveted larger truss span would be a transitional, non-standardized design in Arkansas as well as Texas during the early 1910s. The Cedar Bayou Bridge is an early example of this connection type and illustrates the transition from pin-connected to riveted trusses.

Representing the Work of a Master

The Cedar Bayou Bridge was designed by the firm Waddell & Harrington. The firm’s principals, J.A.L. Waddell and John Harrington, were prominent bridge engineers and were the foremost designers of vertical lift span bridges during the early twentieth century, both during their partnership in the 1910s and with their subsequent firms during the 1920s and 1930s. Both Waddell and Harrington can be considered master engineers. To be significant in this area, however, a bridge also “should be considered important within a body of work to be considered

significant as the work of a master” (Jensen 2015: F-221). Although the Cedar Bayou Bridge was designed by master engineers, it does not appear to be an important design within the body of work of Waddell or Harrington. For example, the first Waddell & Harrington vertical lift span to be built was the Sand Point Bridge, constructed in 1909 in Sand Point, Idaho. Other notable Waddell & Harrington vertical lift spans include: the ASB Bridge, which includes a 245-foot lift span over the Missouri River in Kansas City; Steel Bridge over the Willamette River in Portland, Oregon, whose upper and lower decks lifted independently; and the Penn Lines Railroad Bridge, which featured twin skewed spans over the Calumet River in Chicago (Nyman 2002: 13).

Although the Cedar Bayou Bridge is not significant as the work of a master, the bridge does meet three other areas of significance within the area of Engineering under Criterion C: Early Use of a Bridge Type; Design, Fabrication, and Construction; and Period or Method of Construction.

In addition to National Register Criterion C, the Cedar Bayou Bridge meets Criteria Consideration B: Moved Properties. This consideration states that: “A property removed from its original or historically significant location can be eligible if it is significant primarily for architectural value or it is the surviving property most importantly associated with a historic person or event.” As discussed above, the Cedar Bayou Bridge is significant under Criterion C for Engineering.

Because the Cedar Bayou Bridge meets Criterion C, the recommended period of significance is 1912, which is the year that the vertical lift span, lift towers, and approach spans were built.

Integrity

According to “Historic Road Infrastructure of Texas,” to meet Criterion C, a bridge should retain the seven aspects of integrity; however, “integrity of design, workmanship, and materials are typically more important because they allow engineered structures to convey their physical features and to characterize the types, periods, or methods of their construction.” Furthermore, alterations to a truss’ location do not result in the same level of diminished integrity under Criterion C” (Jensen 2015: F-214, 223). Trusses were designed and constructed of prefabricated parts that allowed for relocation of the bridges, and such relocations were common for highway departments and railroads. This document also indicates that bridges significant under Criterion C can still retain overall historic integrity even if they have been moved.

National Register Criteria Consideration B states that: “A moved property significant under Criterion C must retain enough historic features to convey its architectural values and retain integrity of design, materials, workmanship, feeling, and association.” Furthermore, “moved properties must still have an orientation, setting, and general environment that are comparable to those of the historic location.”

The Cedar Bayou Bridge retains excellent integrity of materials, design, and workmanship in its Warren truss lift span, two lift towers, and plate girder approach spans. These features retain original materials, clearly convey the design principals of a Waddell and Harrington vertical lift span, and illustrate workmanship through their riveted connections. Although the lift machinery and concrete counter weights were replaced when the spans were moved, they appear to be similar to the originals. After the relocation, the bridge remained in use for a railroad crossing a

navigable waterway, and therefore, it retains integrity of feeling, association, and setting. Although the bridge is no longer in its original location, this change does not diminish its overall integrity or its ability to convey its historic significance as an early vertical lift bridge, an uncommon bridge type, and an early riveted span.

5.0 SUMMARY AND RECOMMENDATIONS

UP proposes to file with the Surface Transportation Board (STB) for authority to abandon a 2.23-mile portion of the U.S. Steel Industrial Lead (Line) between Milepost 2.4 and Milepost 4.63 in Harris and Chambers Counties, Texas. The proposed abandonment must comply with Section 106 of the National Historic Preservation Act (16 USC 470) and its implementing regulations (36 CFR 800). The UP contracted with Summit to complete a historic resource evaluation of the Cedar Bayou Bridge proposed for abandonment.

Although the Line was built in 1967, the bridge carrying the Line over Cedar Bayou includes a vertical lift span that was originally built in Arkansas in 1912 and moved to its current location in 1967. The railroad line itself is recommended as not eligible for listing in the National Register. The Cedar Bayou Bridge is recommended as eligible for listing in the National Register under Criterion C, as a rare extant example of a vertical lift truss span with lift towers and approach spans dating from the early twentieth century, as well as Criteria Consideration B: Moved Properties.

6.0 REFERENCES

American Railway Engineering Association

1913 "Vertical Lift Bridge over St. Francis River near Mariana, Arkansas." In *Proceedings of the American Railway Engineering Association*, Volume 14.

Brown, Kathi Ann

1989 *Diversity by Design: Celebrating 75 Years of Howard, Needles, Tammen & Bergendoff, 1914-1989*. Self published by Howard, Needles, Tammen & Bergendoff.

Bennett, Lola, Corrine Smith, and Sean O'Reilly

1989 "Historic Bridges of Arkansas." National Register of Historic Places Multiple Property Documentation Form. Accessed online: https://www.arkansashighways.com/historic_bridge/National%20Register%20Nominations/Historic%20Bridges%20of%20Arkansas.pdf.

Comp, T. Allan, and Donald Jackson.

1977 *Bridge Truss Types: A guide to dating and identifying*. Technical Leaflet 95. U. S. Department of the Interior, National Park Service, Historic American Engineering Record.

Conard, Rebecca, and Tracy Ann Cunning.

1990 "The Advent and Development of Railroads in Iowa: 1855-1940." National Register of Historic Places Multiple Property Documentation Form. On file at the Iowa State Historic Preservation Office, Des Moines.

Condren, S. Michael

2014 "Cairo and Fulton Railroad." In *The Encyclopedia of Arkansas History and Culture*. Available online: <http://www.encyclopediaofarkansas.net/encyclopedia/entry-detail.aspx?entryID=2422>.

Engineering and Contracting

1913 "Method of Constructing a Vertical Lift Draw Bridge: Economic Comparison of Vertical Lift and Swing Span." Volume 39, No. 12.

Franzen, E. T.

1968 "Innovations in Bridge Construction and Maintenance." In *Proceedings of the American Railway Engineering Association*, Volume 69.

Hodge, Michael

2012 "Railroads." In *The Encyclopedia of Arkansas History and Culture*. Available online: <http://www.encyclopediaofarkansas.net/encyclopedia/entry-detail.aspx?entryID=1185>.

Hool, George A. and W.S. Kinne

1943 *Movable and Long-Span Steel Bridges*. McGraw-Hill Book Company, New York.

Jensen, Bruce

2015 "Historic Road Infrastructure of Texas, 1866-1965." National Register of Historic Places Multiple Property Documentation Form. Accessed online: <http://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/historic-resources.html>.

Knight, Lila

2013 "A Guide to the Research and Documentation of Local Texas Bridges." Prepared by Knight & Associates for the Texas Department of Transportation, Austin.

Layton, Edwin T.

1976 "American Ideologies of Science and Engineering" In *Technology and Culture*. Vol. 17.

Nyman, William E.

2002 "Dr. J.A.L. Waddell's Contributions to Vertical Lift Bridge Design." In Heavy Movable Structures, Inc., Ninth Biennial Symposium.

Parsons Brinkerhoff and Engineering and Industrial Heritage

2005 "A Context for Common Historic Bridge Types." Prepared for the National Cooperative Highway Research Program, NCHRP Project 25-25, Task 15.

Roise, Charlene K.

1991 "Highway Bridges in Nebraska, 1870-1942." National Register of Historic Places Multiple Property Documentation Form. Accessed online: https://www.arkansashighways.com/historic_bridge/National%20Register%20Nominations/Historic%20Bridges%20of%20Arkansas.pdf.

Roise, Charlene K. and Jeffrey A. Hess

1991 "Meridian Bridge." National Register of Historic Places Registration Form. Accessed online: http://www.nebraskahistory.org/histpres/nebraska/cedar/CD00-256_Meridian_Bridge.pdf.

Schmidt, Andrew J., Daniel R. Pratt, Andrea C. Vermeer, and Betsy H. Bradley

2007 *Railroads in Minnesota, 1862-1956 National Register of Historic Places Multiple Property Documentation Form*. Prepared by Summit Envirosolutions, Inc. for the Minnesota Department of Transportation, St. Paul.

Tradesman

1912 "Sample of Modern Bridge Construction." Volume 68, No. 1.

United States Census Bureau

1880 – 1960 "United States Census Bureau Population Estimates." Available online: www.census.gov/popest/data/national/asrh/pre-1980/PE-11.html.

Waddell, J.A.L.

1916 *Bridge Engineering*. John Wiley and Sons, New York.

Werner, George C.

2010 "Railroads." In *Handbook of Texas Online*. Available online:
<http://www.tshaonline.org/handbook/online/articles/eqr01>.

TEXAS HISTORICAL COMMISSION
real places telling real stories

January 20, 2016

Sarah J. Rief
Union Pacific Railroad Company
1400 Douglas Street, MS 1580
Omaha, Nebraska 68179

Re: *Project Review under Section 106 of the National Historic Preservation Act, Proposed Abandonment of the US Steel Industrial Lead near Cedar Bayou, Harris and Chambers Counties, Texas, STB Docket No. AB-33 (Sub-No. 324X), THC # 201603588*

Thank you for your correspondence of January 6, 2016, regarding the above-referenced project. This letter serves as comment on the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

The History Programs Division staff, led by Justin Kockritz, has completed its review of the project, which proposes the abandonment of a 2.23-mile segment of the US Steel Industrial Lead of the Union Pacific Railroad. As described in your letter, and as shown on the submitted map, the proposed segment appears to include the vertical lift railroad bridge over Cedar Bayou. As you may know, the lift span was placed over Cedar Bayou in 1967, but was originally constructed in 1912 over the St. Francis River at Cody, Lee County, Arkansas.¹

As railroad abandonments authorized by the Surface Transportation Board (STB) constitute federal undertakings subject to Section 106 of the National Historic Preservation Act, we look forward to receiving and reviewing STB's evaluation of the eligibility of the bridge, and any other potential historic resources within the project's Area of Potential Effect, for listing in the National Register of Historic Places.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions concerning our review, or if we can be of further assistance, please contact Justin Kockritz at justin.kockritz@thc.state.tx.us or 512-936-7403.

Sincerely,

Justin Kockritz, Historian, Federal Programs
For: Mark Wolfe, State Historic Preservation Officer

cc: Kitty Henderson, Executive Director, Historic Bridge Foundation *via e-mail*
Sheryl Shaw, Chair, Chambers County Historical Commission *via e-mail*
Janet Wagner, Chair, Harris County Historical Commission *via e-mail*



¹ "One Million Pound Bridge on Move." *The Baytown Sun* 18 June 1967: 1-2.

TX UP 33-324X
TEXAS HISTORICAL COMMISSION
real places telling real stories

240534

April 20, 2016

Cynthia T. Brown
Chief, Section of Administration
Surface Transportation Board
395 E Street SW, Room #100
Washington, DC 20423-0001

ENTERED
Office of Proceedings
April 21, 2016
Part of
Public Record

Re: Project Review under Section 106 of the National Historic Preservation Act, Proposed Abandonment of the U.S. Steel Industrial Lead from Milepost 2.4 near Baytown to Milepost 4.63 near Cedar Bayou, Harris and Chambers Counties, Texas, STB Docket No. AB-33, Sub No. 324X (STB/106, THC #201606144)

Ms. Brown:

On April 5, 2016, we received correspondence from the Union Pacific Railroad Company (UP) that UP expects to file a Petition of Exemption with the Surface Transportation Board (STB) seeking authorization to abandon the above-referenced portion of the U.S. Steel Industrial Lead in Harris and Chambers Counties, Texas. Authorization by the STB would constitute a Federal undertaking subject to Section 106 of the National Historic Preservation Act and Section 4(f) of the Department of Transportation Act. This letter serves as comment on the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC).

In January 2016, THC responded to a scoping request from UP that this segment of railroad contained a vertical-lift span over Cedar Bayou. This lift span was originally constructed in 1912 over the St. Francis River at Cody, Lee County, Arkansas, and was moved to its present location in 1967. THC requested that STB evaluate, or require their applicant to evaluate, the eligibility of the bridge for listing in the National Register of Historic Places.

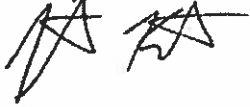
In their Combined Environmental and Historic Report, UP argues that because the vertical-lift span was installed over Cedar Bayou forty-nine (49) years ago, rather than fifty (50) years ago, there are no historic-age structures within the Area of Potential Effect and no additional assessment or National Register evaluation is warranted. THC strongly disagrees with this conclusion. Although location is one of the seven aspects of historic integrity, structures relocated from their original location may be eligible for listing in the National Register if they meet Criteria Consideration B and are significant primarily for their architectural or engineering value. The National Park Service's *National Register Bulletin No. 15*, provides the example that a "bridge relocated from one body of water to another" may be eligible.

At this time, THC considers the vertical-lift span to be a historic-age structure, but believes that sufficient information on the 104-year old vertical-lift span, its potential significance within relevant historic context, and its historic integrity, has not been gathered to make a determination of its eligibility for listing in the National Register. THC respectfully requests that STB, and any other Federal agencies involved in the proposed undertaking, determine if the bridge is eligible for listing in the National Register, and report the findings to THC for further consultation under Section 106 and Section 4(f).

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this Federal review process, and for your efforts to preserve the

irreplaceable heritage of Texas. If you have any questions concerning our review, or if we can be of further assistance, please contact Justin Kockritz at justin.kockritz@thc.state.tx.us or 512-936-7403.

Sincerely



Justin Kockritz, Historian, Federal Programs
For: Mark Wolfe, State Historic Preservation Officer

cc: Victoria Rutson, Federal Preservation Officer, Surface Transportation Board *via e-mail*
Najah Duvall-Gabriel, Advisory Council on Historic Preservation *via e-mail*
Mack Shumate, Jr., Senior General Attorney, Union Pacific Railroad *via e-mail*
Kitty Henderson, Executive Director, Historic Bridge Foundation *via e-mail*
Sheryl Shaw, Chair, Chambers County Historical Commission *via e-mail*
Janet Wagner, Chair, Harris County Historical Commission *via e-mail*

TEXAS HISTORICAL COMMISSION

real places telling real stories

July 27, 2016

Andrew Schmidt
Director of Cultural Resources
Summit Envirosolutions
1217 Bandana Boulevard North
St. Paul, MN 55108

Re: *Project review under Section 106 of the National Historic Preservation Act of 1966,
proposed abandonment (demolition) of Union Pacific railroad ROW in Baytown,
Jefferson County, Texas (STB/106)
THC Tracking #201609257*

Dear Mr. Schmidt,

Thank you for your correspondence regarding the above referenced project, which we received on July 11, 2016. This letter serves as comment on the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

The History Programs Staff, led by Justin Kockritz, has completed its review and determined that the above referenced property is eligible for the National Register under Criterion C and meets Criterion Consideration B. The period of significance for the bridge is 1912.

The Division of Architecture, led by Lydia Woods, has completed its review of the project documentation provided and due to the rarity and significance of this bridge, determined that the demolition of the bridge will have an adverse effect. In order to complete the Section 106 process, we are requesting a condition report of the bridge and an assessment on why demolition would be preferable over keeping the bridge in place. During the Section 106 process you will need to draft an MOA to be approved by the THC. After completion of the MOA we are requesting written evidence that the public has been notified and had a chance to comment on the possible demolition.

Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. We look forward to further consultation with your office and hope to maintain a partnership that fosters effective historic preservation. **If you have any questions concerning our review or if we can be of further assistance, please contact Lydia Woods at 512/463-9122.**

Sincerely,



Lydia Woods, East Texas Project Reviewer
For: Mark Wolfe, State Historic Preservation Officer

MW/lw

Cc: Theresa Goodness, Chair, Jefferson County Historical Commission





August 12, 2016

VIA EMAIL

Ms. Victoria Rutson, Director
Office of Environmental Analysis
Surface Transportation Board
395 E Street, SW
Washington, DC 20423-0001

*Re: Union Pacific U.S. Steel Industrial Lead, Baytown, TX
STB Docket No. AB-33 (Sub-No. 324X)*

Dear Ms. Rutson:

The Union Pacific Railroad (UP) is seeking to abandon the U.S. Steel Industrial Lead, a 2.23-mile railroad right of way in Baytown, Texas. In a filing dated April 1, 2016, UP submitted a combined Environmental and Historical Report to your office and to the Texas State Historic Preservation Officer (SHPO). On behalf of the Texas SHPO in a letter dated April 20, 2016, staff of the Texas Historical Commission (THC) requested a historical evaluation of the Cedar Bayou Bridge, which is within the proposed abandonment area. On behalf of UP, Summit Envirosolutions, Inc. (Summit) submitted the requested historic resources evaluation report to the THC (see Attachment 1). In a letter dated July 27, 2016, THC staff concurred that the Cedar Bayou Bridge is eligible for listing in the National Register of Historic Places and concluded that its demolition would be an adverse effect (see Attachment 2).

UP now requests from your office a Finding of Adverse Effect for the proposed abandonment of the U.S. Steel Industrial Lead in order that a Memorandum of Agreement (MOA) for resolution of the adverse effect may be executed, and the Section 106 consultation may be completed. UP understands that the steps for completing the Section 106 process are:

- Notifying the Advisory Council on Historic Preservation (ACHP) and the Texas SHPO of the Finding of Adverse Effect;
- Development of an MOA in consultation with the Texas SHPO and the ACHP, should they choose to participate; and
- Completion of mitigation measures stipulated in the MOA.

Ms. Victoria Rutson
AB33 (Sub No. 324X)
August 12, 2016
Page 2

On behalf of UP, I thank you for your assistance in this matter and look forward to working with your office. If you have any questions or require additional information, please do not hesitate to contact me at 651-842-4202.

Sincerely,

Summit Envirosolutions, Inc.



Andrew J. Schmidt
Director of Cultural Resources

CC: Mack Shumate, Union Pacific Railroad (via email)
Olin Dirks, Union Pacific Railroad (via email)

UNION PACIFIC RAILROAD
101 North Wacker Drive, Room 1920
Chicago, Illinois 60606-1718

P 312.777.2055
F 877.213.4433
mackshumate@up.com

Mack H. Shumate, Jr.
Senior General Attorney, Law Department

April 1, 2016

240397

VIA E-FILE

The Honorable Cynthia T. Brown
Chief, Section of Administration
Surface Transportation Board
395 E. Street, S.W., Room #100
Washington, DC 20423-0001

ENTERED
Office of Proceedings
April 1, 2016
Part of
Public Record

RE: Proposed Abandonment of the US Steel Industrial Lead from Milepost 2.4 near Baytown to Milepost 4.63 near Cedar Bayou, a total distance 2.23 miles located in Harris County and Chambers County, Texas, STB Docket No. AB-33 (Sub-No. 324X)

Dear Ms. Brown:

Attached for filing in the above-referenced docket is the Combined Environmental and Historic Report prepared pursuant to 49 C.F.R. §1105.7 and §1105.8, with a Certificate of Service, and a transmittal letter pursuant to 49 C.F.R. §1105.11.

Union Pacific anticipates filing a Petition for Exemption to Abandon the Line in this matter on or after April 21, 2016.

Yours very truly,



Mack H. Shumate, Jr.

2016_04_01 STB-EHR Filing Cover Ltr.doc

April 1, 2016

VIA E-FILE

TO: SEE ATTACHED SERVICE LIST

RE: Proposed Abandonment of the US Steel Industrial Lead from Milepost 2.4 near Baytown to Milepost 4.63 near Cedar Bayou, a total distance 2.23 miles located in Harris County and Chambers County, Texas, STB Docket No. AB-33 (Sub-No. 324X)

To whom it may concern:

On or after April 21, 2016, Union Pacific Railroad Company ("UP") expects to be filing with the Surface Transportation Board ("STB" or "Board") a Petition of Exemption seeking authority to abandon a portion of the U.S. Steel Industrial Lead from Milepost 2.4 in Baytown to Milepost 4.63 at the Eastside of Cedar Bayou, a total distance of 2.23 miles, located in Harris and Chambers Counties, Texas (collectively the "Line"). Attached is a Combined Environmental and Historic Report which describes the proposed action and any expected environmental and historic effects, as well as a map of the affected area.

Union Pacific is providing this report so that you may review the information that will form the basis for the STB's independent environmental analysis of this proceeding. If any of the information is misleading or incorrect, if you believe that pertinent information is missing, or if you have any questions about the Board's environmental review process, please contact the Section of Environmental Analysis (SEA) at the following address, and refer to the above-referenced Docket Number:

Surface Transportation Board
Section of Environmental Analysis (SEA)
395 East Street, S.W., Room #100
Washington, DC 20423-0001
Tel: 202-245-0296

Because the applicable statutes and regulations impose stringent deadlines for processing this action, your written comments to SEA (with a copy to our representative) would be appreciated within three (3) weeks.

April 1, 2016

Page 2

Your comments will be considered by the Board in evaluating the environmental and/or historic preservation impacts of the contemplated action. If there are any questions concerning this proposal, please contact our representative directly. UP's representative in this matter is Mack H. Shumate, Jr., who may be contacted by email at mackshumate@up.com, telephone at 312-777-2055 or by mail at 101 North Wacker Drive, Room 1920, Chicago, IL 60606.

Yours very truly,

A handwritten signature in black ink, reading "Mack H. Shumate, Jr." in a cursive script.

Mack H. Shumate, Jr.
Senior General Attorney

Attachment

2016_04_01 STB-EHR Agency Cover Ltr.doc

SERVICE LIST

STB Docket No. AB-33 (Sub-No. 324X)

State Clearinghouse (or Alternate):

Denise S. Francis
Director, State Grants Team
Governor's Office of Budget and Planning
P.O. Box 12428
Austin, Texas 78711

U.S. Army Corps of Engineers:

U.S. Army Corps of Engineers
Fort Worth District
3801 Zoo Park Drive
Waco, Texas 76708

State Environmental Protection Agency:

Zak Covar, MC 109
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711

National Park Service (Regional Office):

Suzanne Dixon, Regional Director
National Park Service - Texas Region
2904 Swiss Avenue
Dallas, Texas 75204

Environmental Protection Agency (Regional Office):

U.S. Environmental Protection Agency - Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

U.S. Natural Resources Conservation Service:

U.S. Natural Resources Conservation Service
Waco Service Center
5040 S. Loop 340
Waco, Texas 76706

State of Texas Historic Preservation Office:

Texas Historical Commission Main Office
P.O. Box 12276
Austin, Texas 78711

National Geodetic Survey:

Geodetic Services Division
SMCC-3 #9209
NOAA N/NGS2
1315 E-W Highway
Silver Spring, Maryland 20910

U.S. Fish and Wildlife Service:

U.S. Fish and Wildlife Service
Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, Texas 78758

Head of McLennan County, Texas:

J.A. "Andy" Harwell
McLennan County Clerk
215 N. 5th Street, Room 223-A
Waco, Texas 76701

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**Docket No. AB-33 (Sub-No. 324X)
UNION PACIFIC RAILROAD COMPANY
-- ABANDONMENT OF AND DISCONTINUANCE OF SERVICE OVER THE --
U.S. STEEL INDUSTRIAL LEAD
IN HARRIS AND CHAMBERS COUNTY, TX
(U.S. STEEL INDUSTRIAL LEAD)**

Combined Environmental and Historic Report

UNION PACIFIC RAILROAD COMPANY
Mack H. Shumate, Jr.
Senior General Attorney
101 North Wacker Drive, #1920
Chicago, Illinois 60606
312/777-2055 (Tel.)
312/777-2065 (FAX)
mackshumate@up.com

Dated: April 1, 2016
Filed: April 1, 2016

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**Docket No. AB-33 (Sub-No. 324X)
UNION PACIFIC RAILROAD COMPANY
-- ABANDONMENT OF AND DISCONTINUANCE OF SERVICE OVER THE --
U.S. STEEL INDUSTRIAL LEAD
IN HARRIS AND CHAMBERS COUNTY, TX
(U.S. STEEL INDUSTRIAL LEAD)**

Combined Environmental and Historic Report

Union Pacific Railroad Company ("UP") submits this Combined Environmental and Historic Report ("EHR") pursuant to 49 C.F.R. § 1105.7(e) and 49 C.F.R. § 1105.8(d), respectively, for an exempt abandonment of a portion of the U.S. Steel Lead from Milepost 2.4 in Baytown to Milepost 4.63 at the Eastside of Cedar Bayou, a distance of 2.23 miles in Harris and Chambers Counties, Texas (the "Line"). The Line traverses U.S. Postal Service Zip Codes 77520 and 77523. UP anticipates that it will file a Notice of Exemption to abandon the Line on or after April 21, 2016. A map of the Line (**Attachment No. 1**), and UP's letter to federal, state and local government agencies (**Attachment No. 2**), are attached to this EHR. There are no bridge structures on the Line 50 years or older. Responses received thus far to UP's letters are also attached.

ENVIRONMENTAL REPORT
49 C.F.R. ' 1105.7(e)

(1) Proposed action and alternatives. Describe the proposed action, including commodities transported, the planned disposition (if any) of any rail line and other structures that may be involved, and any possible changes in current operations or maintenance practices. Also describe any reasonable alternatives to the proposed action. Include a readable, detailed map and drawings clearly delineating the project.

Response: The proposed action involves an exempt abandonment of a portion of the U.S. Steel Lead from Milepost 2.4 in Baytown to Milepost 4.63 at the Eastside of Cedar Bayou, a distance of 2.23 miles in Harris and Chambers Counties, Texas. A map of the Line is attached as **Attachment No. 1**.

The Line was constructed around 1968 by Missouri Pacific. The starting point for the Line is a connection at Baytown with a railroad originally built by Houston and North Shore, an electric interurban predecessor to Missouri Pacific. The Line continued to Cedar Bayou in order to serve the U.S. Steel mill. The railroad constructed a 853 foot bridge in 1967 to cross the Cedar Bayou. This 1967 bridge included three spans measuring 313 feet from a lift bridge relocated from the St. Francis River at Cody, Lee County, Arkansas. The steel mill closed permanently in 1988 and the site was redeveloped as the Cedar Point Industrial Park. The Line is laid with 112lb jointed rail. There are three bridges on the Line, none of which have been in place for 50 or more years.

UP's real property interest in the Line is approximately 95% reversionary in nature. Based upon information in UP's possession, the Line does not contain federally granted right-of-way. Any documentation in UP's possession with regard to ownership of the Line will be made available to those requesting it.

It is UP's intention to salvage the track material on the Line and vacate the SR-146 overpass so that it may be removed to facilitate the Grand Parkway project. The salvage process will include the unbolting of the trackage and removal of all rails, ties and other track material from the Line as follows: With the use of specialized machinery placed on the railroad right-of-way, the rails and related steel (angle bars, tie plates,

spikes, switches and any other metal parts) will be removed. Next the wooden ties will be raised from among the ballast with a tool designed for minimum disruption of the ground material. The ties will then be separated into three groups as follows: (1) good quality ties that would be re-used in rail service, (2) landscape-quality ties that would be re-sold to lumber dealers for landscaping and (3) scrap ties. Scrap ties are loaded into truck trailers or containers and shipped by UP's salvage contractor to an EPA approved disposal site or to a cogeneration facility.

Culverts and right-of-way grading will remain intact so as not to alter the prevailing drainage and water flows along the Line. Ballast will typically be left in place, but may be removed if it is of exceptional quality for use elsewhere. Finally, all railroad at grade crossings will be removed, remediated and resurfaced with gravel, asphalt or concrete, to match existing roadway surface conditions in accordance with governing road authority requirements. All grade crossing warning devices will also be dismantled and removed.

UP's salvage work for abandonments is performed by experienced rail material salvagers. Each salvage contract includes detailed information on any environmental or historical conditions imposed by the Board. Completed work is independently inspected by a UP roadmaster or other maintenance official to ensure compliance with UP standards of quality and all contractual obligations, including Board imposed conditions, if applicable.

After the proposed abandonment, the Baytown area will continue to receive rail service from Union Pacific via the UP Baytown subdivision, and the remaining portion of the U.S. Steel Lead. Cedar Bayou will continue to receive rail service via UP's Cedar

Bayou Industrial Lead. BNSF also has operations in Baytown and Nearby Eldon, TX. The area reached by the Line is well served by SR-146 and Hwy 99 highways and several local roads which cross the area.

No local traffic has moved to or from the Line in the past two years and there is no overhead traffic. No complaint regarding cessation of service has been filed, is pending, or has been ruled upon in favor of a complainant in at least two years.

(2) Transportation System. Describe the effects of the proposed action on regional or local transportation systems and patterns. Estimate the amount of traffic (passenger or freight) that will be diverted to other transportation systems or modes as a result of the proposed action.

Response: Given that no traffic uses the Line, the proposed abandonment will have no impact on area transportation systems and patterns.

(3) Land Use.

(i) Based on consultation with local and/or regional planning agencies and/or a review of the official planning documents prepared by such agencies, state whether the proposed action is consistent with existing land use plans. Describe any inconsistencies.

(ii) Based on consultation with the U.S. Soil Conservation Service, state the effect of the proposed action on any prime agricultural land.

(iii) If the action affects land or water uses within a designated coastal zone, include the coastal zone information required by 49 C.F.R. § 1105.9.

(iv) If the proposed action is an abandonment, state whether or not the right-of-way is suitable for alternative public use under 49 U.S.C. § 10905 and explain why.

Response: (i) UP is unaware of any adverse effects on local and existing land use plans. The Harris and Chambers County Clerks have been contacted. To date, UP has not received a response.

(ii) The Natural Resources Conservation Service ("NRCS") has been

contacted. To date, UP has not received a response.

(iii) Not Applicable.

(iv) The property proposed for abandonment is suitable for a public purpose in the form of a corridor for utilities such as sanitary sewer lines, roads or highways, or other forms of mass transportation, energy production or transmission. The property may also be suitable for conservation as a hike/bike trail.

(4) Energy.

(i) Describe the effect of the proposed action on transportation of energy resources.

(ii) Describe the effect of the proposed action on recyclable commodities.

(iii) State whether the proposed action will result in an increase or decrease in overall energy efficiency and explain why.

(iv) If the proposed action will cause diversions from rail to motor carriage of more than:

(A) 1,000 rail carloads a year, or

(B) an average of 50 rail carloads per mile per year for any part of the affected line, quantify the resulting net change in energy consumption and show the data and methodology used to arrive at the figure given.

Response: (i) There are no effects on the transportation of energy resources.

(ii) There are no recyclable commodities moved over the Line.

(iii) There will be no change in energy consumption from the proposed action.

(iv)(A)(B) UP does not anticipate that there will be any rail-to-motor diversion.

(5) Air. (i) If the proposed action will result in either:

(A) an increase in rail traffic of at least 100% (measured in gross ton miles annually) or an increase of at least eight trains a day on any segment of rail line affected by the proposal, or

(B) an increase in rail yard activity of at least 100% (measured by carload activity), or

(C) an average increase in truck traffic of more than 10% of the average daily traffic or 50 vehicles a day on any affected road segment, quantify the anticipated effect on air emissions. For a proposal under 49 U.S.C. §10901 (or §10505) to construct a new line or reinstitute service over a previously abandoned line, only the eight train a day provision in subsection (5)(i)(A) will apply.

Response: UP does not anticipate any such effects.

(5) Air. (ii) If the proposed action affects a class 1 or nonattainment area under the Clean Air Act, and will result in either:

(A) an increase in rail traffic of at least 50% (measured in gross ton miles annually) or an increase of at least three trains a day on any segment of rail line, or

(B) an increase in rail yard activity of at least 20% (measured by carload activity), or

(C) an average increase in truck traffic of more than 10% of the average daily traffic or 50 vehicles a day on a given road segment, then state whether any expected increased emissions are within the parameters established by the State Implementation Plan. However, for a rail construction under 49 U.S.C. §10901 (or 49 U.S.C. §10505), or a case involving the reinstitution of service over a previously abandoned line, only the three train a day threshold in this item shall apply.

Response: There will be no increase in rail traffic, rail yard activity, or truck traffic as a result of the proposed action.

(5) Air. (iii) If transportation of ozone depleting materials (such as nitrogen oxide and freon) is contemplated, identify: the materials and quantity; the frequency of service; safety practices (including any speed restrictions); the applicant's safety record

(to the extent available) on derailments, accidents and spills; contingency plans to deal with accidental spills; and the likelihood of an accidental release of ozone depleting materials in the event of a collision or derailment.

Response: The proposed action will not affect the transportation of ozone depleting materials.

(6) Noise. If any of the thresholds identified in item (5)(i) of this section are surpassed, state whether the proposed action will cause:

- (i) an incremental increase in noise levels of three decibels Ldn or more or
- (ii) an increase to a noise level of 65 decibels Ldn or greater. If so, identify sensitive receptors (e.g., schools, libraries, hospitals, residences, retirement communities, and nursing homes) in the project area and quantify the noise increase for these receptors if the thresholds are surpassed.

Response: Not applicable.

(7) Safety.

- (i) Describe any effects of the proposed action on public health and safety (including vehicle delay time at railroad grade crossings).
- (ii) If hazardous materials are expected to be transported, identify: the materials and quantity; the frequency of service; whether chemicals are being transported that, if mixed, could react to form more hazardous compounds; safety practices (including any speed restrictions); the applicant's safety record (to the extent available) on derailments, accidents and hazardous spills; the contingency plans to deal with accidental spills; and the likelihood of an accidental release of hazardous materials.
- (iii) If there are any known hazardous waste sites or sites where there have been known hazardous materials spills on the right-of-way, identify the location of those sites and the types of hazardous materials involved.

Response: (i) The proposed action will have no detrimental effects on public health and safety.

(ii) The proposed action will not affect the transportation of hazardous materials.

(iii) There are no known hazardous materials waste sites or sites where known hazardous material spills have occurred on or along the subject right-of-way.

(8) Biological resources.

(i) Based on consultation with the U.S. Fish and Wildlife Service, state whether the proposed action is likely to adversely affect endangered or threatened species or areas designated as a critical habitat, and if so, describe the effects.

(ii) State whether wildlife sanctuaries or refuges, National or State parks or forests will be affected, and describe any effects.

Response: (i) and (ii). The U.S. Fish and Wildlife Service and the National Park Service were contacted. A response dated February 1, 2016 was received from the United States Department of the Interior, Fish and Wildlife Service. A copy of said response is attached hereto as Attachment 4 and is hereby made a part hereof. UP and its salvage contractors will comply with the goals of the Fish and Wildlife Service and will comply with the IPaC System. No response was received from the National Park Service.

(9) Water.

(i) Based on consultation with State water quality officials, state whether the proposed action is consistent with applicable Federal, State or local water quality standards. Describe any inconsistencies.

(ii) Based on consultation with the U.S. Army Corps of Engineers, state whether permits under Section 404 of the Clean Water Act (33 U.S.C. § 1344) are required for the proposed action and whether any designated wetlands or 100-year flood plains will be affected. Describe the effects.

(iii) State whether permits under Section 402 of the Clean Water Act (33 U.S.C. § 1342) are required for the proposed action. (Applicants should contact the U.S. Environmental Protection Agency or the state

environmental protection or equivalent agency if they are unsure whether such permits are required.)

Response: (i) The U. S. Environmental Protection Agency Region 6 office and the Texas Commission on Environmental Quality have been contacted. To date there has been no response.

(ii) The U. S. Army Corps of Engineers (Corps) has been contacted. To date, no responses have been received.

(iii) UP does not anticipate that there will be any requirements for Section 402 permits.

(10) Proposed Mitigation. Describe any actions that are proposed to mitigate adverse environmental impacts, indicating why the proposed mitigation is appropriate.

Response: There are no known adverse environmental impacts.

HISTORIC REPORT
49 C.F.R. § 1105.8(d)

(1) A U.S.G.S. topographic map (or an alternate map drawn to scale and sufficiently detailed to show buildings and other structures in the vicinity of the proposed action) showing the location of the proposed action, and the locations and approximate dimensions of railroad structures that are 50 years old or older and are part of the proposed action:

Response: See **Attachment No. 1.**

(2) A written description of the right-of-way (including approximate widths to the extent known), and the topography and urban and/or rural characteristics of the surrounding area:

Response: The right of way commences at S Main St in Baytown and ends on the East side of Cedar Bayou in Harris and Chambers Counties, Texas. The Westernmost portion of the right of way runs through residential areas with the balance running through open land zoned for open space, general commercial, and livable center development. Various portions of the Right of Way are 50, 100, and 160 feet wide. The topography is flat.

(3) Good quality photographs (actual photographic prints, not photocopies) of railroad structures on the property that are 50 years old or older and of the immediately surrounding area:

(4) The date(s) of construction of the structure(s), and the date(s) and extent of any major alterations to the extent such information is known:

Response to (3) and (4): There are no structures 50 years or older on the Line.

(5) A brief narrative history of carrier operations in the area, and an explanation of what, if any, changes are contemplated as a result of the proposed action:

Response: See UP's response to question (1) in the Environmental Report for a brief history and description.

(6) A brief summary of documents in the carrier's possession, such as engineering drawings, that might be useful in documenting a structure that is found to be historic:

Response: There are no structures 50 years or older on the line.

(7) An opinion (based on readily available information in the UP's possession) as to whether the site and/or structures meet the criteria for listing on the National Register of Historic Places (36 C.F.R. § 60.4), and whether there is a likelihood of archeological resources or any other previously unknown historic properties in the project area, and the basis for these opinions (including any consultations with the State Historic Preservation Office, local historical societies or universities):

Response: There are no sites or structures that appear to meet the criteria for listing on the National Register. Attached as **Attachment No. 3** is a notification from the Texas Historical Commission that it has reviewed the area to be abandoned and notes that the Cedar Bayou Bridge that was installed in 1967 was originally constructed and installed in 1912 over the St. Francis River at Cody, Lee County, Arkansas. UP concurs with the Texas Historical Commission's statement, however, UP is of the opinion that the 853 foot Cedar Bayou Bridge that was installed in 1967 is not a structure that is fifty (50) years old or older. It is true that a 313 foot portion of the superstructure of the Cedar Bayou Bridge was fifty (50) years old or older when installed, but the entire 853 foot Cedar Bayou Bridge, installed as a structure, did not occur until 1967.

(8) A description (based on readily available information in the railroad's possession) of any known prior subsurface ground disturbance or fill, environmental conditions (naturally occurring or manmade) that might affect the archeological recovery of resources (such as swampy conditions or the presence of toxic wastes), and the surrounding terrain.

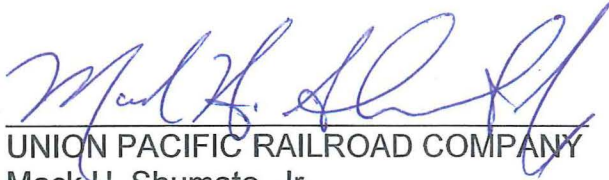
Response: UP does not have any such readily available information.

(9) Within 30 days of receipt of the historic report, the State Historic Preservation Officer may request the following additional information regarding specified non-railroad owned properties or groups of properties immediately adjacent to the railroad right-of-way. Photographs of specified properties that can be readily seen from the railroad right-of-way (or other public rights-of-way adjacent to the property) and a written description of any previously discovered archeological sites, identifying the locations and type of the site (i.e., prehistoric or native American):

Response: Not applicable.

Dated this 1st day of April, 2016.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Mack H. Shumate, Jr.", is written over a horizontal line.

UNION PACIFIC RAILROAD COMPANY

Mack H. Shumate, Jr.

Senior General Attorney

101 North Wacker Drive, #1920

Chicago, Illinois 60606

312/777-2055 (Tel.)

312/777-2065 (Fax)

mackshumate@up.com

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing Combined Environmental and Historic Report in Docket No. AB-33 (Sub-No. 324X), the Abandonment and Discontinuance of Service on the U.S. Steel Industrial Lead in Harris and Chambers Counties, Texas was served by First Class U.S. Mail, postage prepaid, on the 1st day of April, 2016, on the following parties:

State Clearinghouse (or Alternate):

Denise S. Francis
Director, State Grants Team
Governor's Office of Budget and Planning
P.O. Box 12428
Austin, Texas 78711

U.S. Army Corps of Engineers:

U.S. Army Corps of Engineers
Fort Worth District
3801 Zoo Park Drive
Waco, Texas 76708

State Environmental Protection Agency:

Zak Covar, MC 109
Texas Commission on Environmental
Quality
P.O. Box 13087
Austin, Texas 78711

National Park Service (Regional Office):

Suzanne Dixon, Regional Director
National Park Service - Texas Region
2904 Swiss Avenue
Dallas, Texas 75204

**Environmental Protection Agency
(Regional Office):**

U.S. Environmental Protection Agency -
Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

**U.S. Natural Resources Conservation
Service:**

U.S. Natural Resources Conservation
Service
Waco Service Center
5040 S. Loop 340
Waco, Texas 76706

**State of Texas Historic Preservation
Office:**

Texas Historical Commission Main Office
P.O. Box 12276
Austin, Texas 78711

National Geodetic Survey:

Geodetic Services Division
SMCC-3 #9209
NOAA N/NGS2
1315 E-W Highway
Silver Spring, Maryland 20910

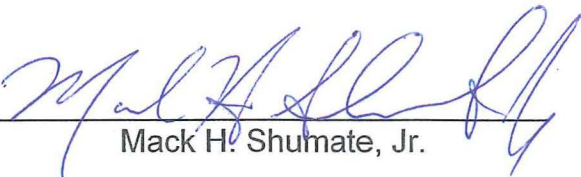
U.S. Fish and Wildlife Service:

U.S. Fish and Wildlife Service
Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, Texas 78758

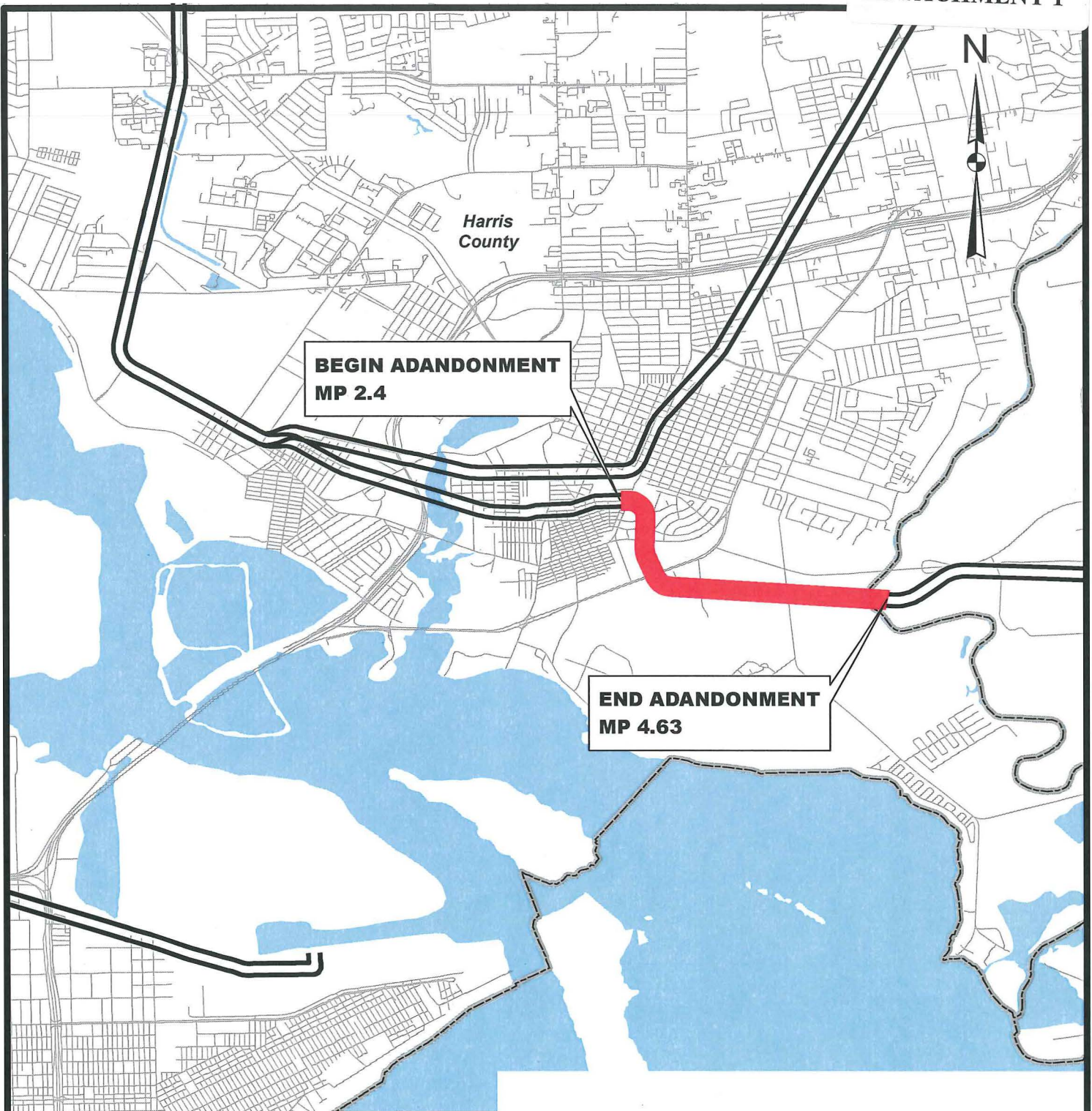
Head of McLennan County, Texas:

J.A. "Andy" Harwell
McLennan County Clerk
215 N. 5th Street, Room 223-A
Waco, Texas 76701

Dated this 1st day of April, 2016.



Mack H. Shumate, Jr.



US STEEL IND LD

UNION PACIFIC RAILROAD CO.
MP 2.4 TO MP 4.63
TOTAL OF 2.23 MILES IN HARRIS COUNTY
IN TEXAS

UNION PACIFIC RAILROAD CO.
US STEEL IND LD
TEXAS

No Structures 50 Years or Older

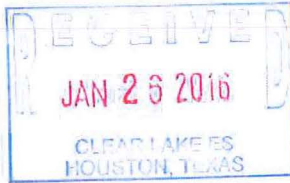
Legend

- ABANDONMENT
- OTHER TRACKS
- OTHER ROADS

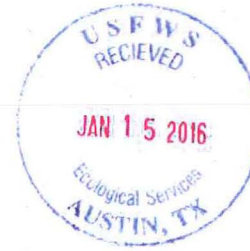


To Clear Lake

UNION PACIFIC RAILROAD
1400 Douglas Street Omaha, Nebraska 68179



January 6, 2016

**State Clearinghouse (or Alternate):**

Denise S. Francis
Director, State Grants Team
Governor's Office of Budget and Planning
P.O. Box 12428
Austin, Texas 78711

U.S. Army Corps of Engineers:

U.S. Army Corps of Engineers
Galveston District
2000 Fort Point Rd.
Galveston, Texas 77550

State Environmental Protection Agency:

Texas Commission on Environmental Quality
5425 Polk St., Suite H
Houston, Texas 77023

National Park Service (Regional Office):

National Park Service - Intermountain Region
12795 Alameda Parkway
Denver, Colorado 80225

Environmental Protection Agency (Regional Office):

U.S. Environmental Protection Agency - Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

U.S. Natural Resources Conservation Service:

U.S. Natural Resources Conservation Service
Bryan Service Center
1716 Briarcrest Drive, Suite 510
Bryan, Texas 77802

State of Texas Historic Preservation Office:

Texas Historical Commission Main Office
P.O. Box 12276
Austin, Texas 78711

National Geodetic Survey:

Geodetic Services Division
SMCC-3 #9209
NOAA N/NGS2
1315 E-W Highway
Silver Spring, Maryland 20910

U.S. Fish and Wildlife Service:

U.S. Fish and Wildlife Service
Southwest Region (2) Office
500 East McCarty Lane
San Marcos, Texas 78666

Head of Harris County, Texas:

Stan Stanart
Harris County Clerk
201 Caroline
Houston, Texas 77002

Head of Chambers County, Texas:

Heather Hawthorne
Chambers County Clerk
P.O. Box 728
Anahuac, Texas 77514

Re: Proposed Abandonment of the US Steel Industrial Lead from Milepost 2.4 near Baytown to Milepost 4.63 near Cedar Bayou, a total distance of 2.23 miles located in Harris County and Chambers County, Texas, STB Docket No. AB-33 (Sub-No. 324X)

To Whom It May Concern:

Union Pacific Railroad Company plans to request authority from the Surface Transportation Board (STB) to abandon and discontinue service on the US Steel Industrial Lead from Milepost 2.4 near Baytown, Texas to Milepost 4.63 near Cedar Bayou, Texas, a total distance of 2.23 miles located in Harris County and Chambers County, Texas. A map of the proposed abandonment and discontinuance shown in red is attached.



UNION PACIFIC RAILROAD
1400 Douglas Street Omaha, Nebraska 68179

Pursuant to the STB's regulations at 49 C.F.R. Part 1152, and the environmental regulations at 40 C.F. R. Part 1105.7, this is to request your assistance in identifying any potential effects of this action as indicated in the paragraphs below. We do not anticipate any adverse environmental impacts. However, if you identify any adverse environmental impacts, describe any actions that are proposed in order to mitigate the environmental impacts. Please provide us with a written response that can be included in an Environmental Report, which will be sent to the STB.

LOCAL AND/OR REGIONAL PLANNING AGENCIES. State whether the proposed action is consistent with existing land use plans. Please describe any inconsistencies.

U.S. SOIL CONSERVATION SERVICE. State the effect of the proposed action on any prime agricultural land.

U.S. FISH AND WILDLIFE SERVICE (And State Game and Parks Commission, If Addressed). State (1) whether the proposed action is likely to adversely affect endangered or threatened species or areas designated as a critical habitat, and if so, describe the effects, and (2) whether wildlife sanctuaries or refuges, National or State parks or forests will be affected, and describe any effects.

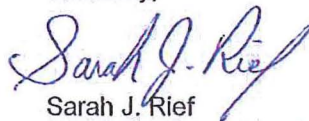
STATE WATER QUALITY OFFICIALS. State whether the proposed action is consistent with applicable Federal, State or Local water quality standards. Please describe any inconsistencies.

U.S. ARMY CORPS OF ENGINEERS. State (1) whether permits under Section 404 of the Clean Water Act (33 U.S. C. § 1344) are required for the proposed action and (2) whether any designated wetlands or 100-year flood plains will be affected. Please describe the effects.

U.S. ENVIRONMENTAL PROTECTION AGENCY AND STATE ENVIRONMENTAL PROTECTION (OR EQUIVALENT AGENCY). (1) Identify any potential effects on the surrounding area, (2) identify the location of hazardous waste sites and known hazardous material spills on the right-of-way and list the types of hazardous materials involved, and (3) state whether permits under Section 402 of the Clean Water Act (33 U.S.C. § 1342) are required for the proposed action.

Thank you for your assistance. Please send your reply to the undersigned.

Sincerely,



Sarah J. Rief
Legal Assistant - Law Department
Union Pacific Railroad Company
1400 Douglas Street, MS 1580
Omaha, Nebraska 68179
Phone: (402) 544-0438
Email: sjrief@up.com

Attachment



TEXAS HISTORICAL COMMISSION
real places telling real stories

January 20, 2016

Sarah J. Rief
Union Pacific Railroad Company
1400 Douglas Street, MS 1580
Omaha, Nebraska 68179

Re: *Project Review under Section 106 of the National Historic Preservation Act, Proposed Abandonment of the US Steel Industrial Lead near Cedar Bayou, Harris and Chambers Counties, Texas, STB Docket No. AB-33 (Sub-No. 324X), THC # 201603588*

Thank you for your correspondence of January 6, 2016, regarding the above-referenced project. This letter serves as comment on the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

The History Programs Division staff, led by Justin Kockritz, has completed its review of the project, which proposes the abandonment of a 2.23-mile segment of the US Steel Industrial Lead of the Union Pacific Railroad. As described in your letter, and as shown on the submitted map, the proposed segment appears to include the vertical lift railroad bridge over Cedar Bayou. As you may know, the lift span was placed over Cedar Bayou in 1967, but was originally constructed in 1912 over the St. Francis River at Cody, Lee County, Arkansas.¹

As railroad abandonments authorized by the Surface Transportation Board (STB) constitute federal undertakings subject to Section 106 of the National Historic Preservation Act, we look forward to receiving and reviewing STB's evaluation of the eligibility of the bridge, and any other potential historic resources within the project's Area of Potential Effect, for listing in the National Register of Historic Places.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions concerning our review, or if we can be of further assistance, please contact Justin Kockritz at justin.kockritz@thc.state.tx.us or 512-936-7403.

Sincerely,

Justin Kockritz, Historian, Federal Programs
For: Mark Wolfe, State Historic Preservation Officer

cc: Kitty Henderson, Executive Director, Historic Bridge Foundation *via e-mail*
Sheryl Shaw, Chair, Chambers County Historical Commission *via e-mail*
Janet Wagner, Chair, Harris County Historical Commission *via e-mail*

¹ "One Million Pound Bridge on Move." *The Baytown Sun* 18 June 1967: 1-2.





In Reply Refer To:
FWS/R2/TCESFO

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Texas Coastal Ecological Services Field Office

17629 El Camino Real, Suite 211

Houston, Texas 77058

281/286-8282 / (FAX) 281/488-5882



February 1, 2016

Thank you for your request for threatened and endangered species, fish and wildlife, environmental, and/or aquatic resources information, comments, and/or recommendations within the United States Fish and Wildlife Service (Service) Texas Coastal Ecological Service's area (Houston Office) of responsibility.

In order to obtain information regarding fish and wildlife resources concerning a specific project or project area, we recommend that you first utilize the Service developed Information, Planning, and Conservation (IPaC) System. The IPaC system is designed for easy, public access to information about the natural resources for which the Service has trust or regulatory responsibility. Examples include threatened and endangered species, migratory birds, National Refuge lands, and National Wetlands Inventory wetlands. One of the primary goals of the IPaC system is to provide this information in a manner that assists people in planning their activities within the context of natural resource conservation. The IPaC system also assists people through the various regulatory consultation, permitting and approval processes administered by the Fish and Wildlife Service, helping achieve more effective and efficient results for both the project proponents and natural resources.

The IPaC system can be found at the following website address: <http://ecos.fws.gov/ipac/> . Please note, by requesting an Official Species List you will receive an official consultation response letter and tracking number. If you still have questions concerning your project as it relates to fish and wildlife resources after visiting the IPaC system, please feel free to contact our office at the letterhead address above. We will be happy to assist you.

Sincerely,

Charles Ardizzone
Field Supervisor