

**Section 4(f) Evaluation
US59 – Amelia Earhart Memorial Bridge
Over the Missouri River
Atchison, Kansas to US59/State Route 45
Intersection in
Buchanan County, Missouri**

**Submitted Pursuant to 23 USC 138 and 49 USC 303 by the
U.S. Department of Transportation – Federal Highway
Administration
Topeka, Kansas
and**

**Kansas Department of Transportation
(KDOT Project No. 59-3 K-8238-01)
Missouri Department of Transportation)
(MoDOT Project No. J1P0800)**

In consideration of the facts presented, there is no feasible and prudent alternative to the use of the Amelia Earhart Memorial Bridge, and the proposed action includes all possible planning to minimize harm to the Section 4(f) property resulting from such use.

5/14/2007
Date of Approval


For Federal Highway Administration, Topeka, Kansas

4.0 Section 4(f) Evaluation

4.1 Proposed Action

KDOT and MoDOT propose to improve US59 from 4th Street in Atchison, Kansas to Route 45 in Buchanan County, Missouri (KDOT Job Number 59-3 K-8238-01 and MoDOT Job Number J1P0800). This project is approximately 4.2 miles long with a bridge span over the Missouri River of almost 2,500 feet (Figure 4-1). The purposes of the proposed Amelia Earhart Memorial Bridge improvements include:

- provide a structurally sound, operationally efficient, economically feasible, and safe Missouri River crossing and roadway for US59 in the vicinity of Atchison, Kansas that accommodates existing and projected traffic demands;
- provide a facility that is consistent with current design criteria; and
- provide a facility that accommodates economic sustainability and future development within the area and the region.

The need for the proposed action is based on a number of factors relating primarily to the current bridge's functional obsolescence and structural deficiencies. Other needs include transportation demand and economic development. The basic underlying needs of the project include the following.

- The Amelia Earhart Memorial Bridge is structurally deficient primarily due to the moderate to severe corrosion of the steel superstructure.
- Constructed in 1937/1938, the bridge is an aging facility in poor condition. As the bridge ages, the rate of deterioration accelerates resulting in increased maintenance costs.
- The Amelia Earhart Memorial Bridge is functionally obsolete (lacks shoulders for emergency pull off) which results in a safety concern. Current American Association of State Highway and Transportation Officials (AASHTO) criteria require shoulders on bridges of this length.
- The existing bridge was not designed for today's legal loads.
- The existing bridge and roadway are congested during peak periods of flow and the level of service on the bridge is expected to degrade based on projected traffic growth rates.

The proposal for this project is to provide four lanes of pavement over the Missouri River (two in each direction) on a structurally sufficient bridge (or bridges). Additionally, this proposal provides for an upgrade from the existing two-lane highway to a four-lane highway with limited access through the community of Winthrop, Missouri. Alternatives 4H Rehab and 4H' Replacement are the build alternatives being considered. Selection of a Preferred Alternative has been made based, in part, on substantive comments from resource agencies, interested groups and the public hearing. Section 2.0, Project Alternatives, presents detailed information on the build alternatives.

Section 4(f) of the Department of Transportation Act (49 USC 303) protects publicly owned parks, recreation areas, wildlife refuges, waterfowl refuges, and significant historic and archeological resources. The use of Section 4(f) resources can only be approved by the Secretary of Transportation if there are no feasible and prudent alternatives that avoid the Section 4(f) resource, and all possible plans to minimize harm to the Section 4(f) resources have been incorporated into the reasonable build alternative. The Section 4(f) resource impacted by Alternatives 4H Rehab and 4H' Replacement is the Amelia Earhart Memorial Bridge over the Missouri River.

The Amelia Earhart Memorial Bridge was constructed in 1937/1938 and is considered eligible for the National Register of Historic Places (NRHP). Alternative 4H Rehab requires the rehabilitation of the existing two-lane bridge. Alternative 4H' Replacement requires the removal of the existing bridge.

4.2 Section 4(f) Property (Amelia Earhart Memorial Bridge)

Construction on the Amelia Earhart Memorial Bridge over the Missouri River began in 1937 and was completed in 1938. The Amelia Earhart Memorial Bridge along US59 provides a two-lane structure over the Missouri River between Atchison, Kansas and Buchanan County, Missouri. The Amelia Earhart Memorial Bridge is a series of steel girder spans, deck truss spans and through truss spans. The spans rest on concrete bents and piers. The river piers are supported by concrete shafts founded in shale and the approach piers are multi-column bents with either steel H-pile or timber pile foundations. Substructure consists of concrete abutments, wingwalls and piers, and hammerhead spill-through piers at approach spans.

The Amelia Earhart Memorial Bridge is eligible for listing in the National Register of Historic Places under Criterion C-Engineering with Metal Truss Bridges of Kansas, 1861-1939, and New Deal-Era Resources of Kansas.

A more detailed list of issues concerning the use of the existing bridge as part of a final build alternative is outlined in later sections of this chapter and summarized in Section 4.7.

4.3 Impacts to Section 4(f) Property

Two Reasonable Build Alternatives were considered and evaluated in the Final EIS. These were Alternative 4H Rehab, which proposes a new two-lane bridge immediately downstream of the existing bridge to handle eastbound US59 traffic and the rehabilitation of the existing bridge to handle westbound traffic; and Alternative 4H' Replacement, which proposes a new four-lane bridge immediately downstream of the existing bridge and the removal of the existing bridge. As proposed, the Reasonable Build Alternatives maximize the use of the existing right of way while minimizing impacts to surrounding natural resources.

The construction of Alternative 4H' Replacement will require the removal of the NRHP eligible Amelia Earhart Memorial Bridge over the Missouri River. Physical destruction of this bridge is considered an adverse effect when applying the requirements of Section 106 of the National Historic Preservation Act (36 CFR Part 800.5) (see KSHS letter dated June 24, 2002 in Appendix B). The treatment of the Amelia Earhart Memorial Bridge will be handled in accordance with the Kansas SHPO and the ACHP.

Under Alternative 4H Rehab, the eligible Amelia Earhart Memorial Bridge could remain in place for approximately 30 years. However, the construction of a new two-lane bridge immediately downstream of it will result in an adverse effect on the historic integrity of this resource and its viewshed. Additionally, several engineering and structural details are required, which have been determined to create an adverse effect. These include the construction of a concrete barrier along the bridge railing and the re-setting of the handrail on the bridge, the addition of drainage scuppers to the bridge deck, and construction of a high fence on top of the concrete barrier where the bridge crosses the rail yards in Atchison. The FHWA and Kansas SHPO have determined that the alternative constitutes an adverse effect (letter from KSHS, February 9, 2006 in Appendix B).

It should be noted that Alternative 4H Rehab results in a shorter expected life than Alternative 4H' Replacement. The existing Amelia Earhart Memorial Bridge would be removed

approximately 30 years after its rehabilitation, which would necessitate the construction of a new two-lane bridge. Alternative 4H Rehab still results in a functionally obsolete bridge as well.

4.4 Proposed Avoidance Alternatives of Section 4(f)

To avoid all impacts, an alternative bridge would have to be constructed far enough upstream or downstream of the existing bridge so as not to interfere with the historic integrity of the bridge. However, these other corridors studied in the Advanced Preliminary Study were determined to result in greater impact to natural resources (floodplain, wetland, farmland), were not consistent with the existing traffic patterns and did not meet the objectives of the project Purpose and Need. The change in traffic patterns resulted in cumulative impacts to the adjacent street network.

The No Build Alternative avoids impacts to the Amelia Earhart Memorial Bridge but does not address the project purpose and need.

For these reasons, alternative river crossings far enough upstream or downstream of the existing bridge that would avoid direct and indirect impacts were not considered feasible and prudent, and were eliminated from further analysis and consideration.

4.5 Measures to Minimize Harm to the Section 4(f)

The procedures to determine the level of documentation and mitigation for the Amelia Earhart Memorial Bridge is set forth in a draft MOA in this document (Exhibit 1). The following is a preliminary list of commitments to minimize harm to this resource.

Alternative 4H' Replacement

1. Documentation of the Amelia Earhart Memorial Bridge

- a. Prior to authorizing demolition of the Amelia Earhart Memorial Bridge, KDOT will prepare three (3) copies of documentation of the bridge, including large format photographs, original bridge plans, and the Activity II and III historical reports.
- b. KDOT will conduct oral interviews with individuals who have personal knowledge of the history of the bridge, including its construction and opening. Interviewees will include Mr. Champ Faris who worked on the original construction of the bridge during the late 1930s, and Rod Dierking who was 10 years old when he rushed ahead of dignitaries on his bicycle at the bridge opening to be the first person across the bridge. The interviews will be documented using audio and/or video tape. Efforts will be made to encourage KTWU and Sunflower Journeys, or a similarly qualified entity, to conduct the interviews and professionally record them with an eye toward broadcasting the results.
- c. No later than July 1, 2008, KDOT will provide copies of documentation required in a and b above as donations to the collections of the Atchison County Historical Society Museum, the Atchison Public Library, the Kansas State Historical Society Library, the KSSHPO, and the MOSHPO for public use.
- d. All documentation has been or will be conducted and/or supervised by a person or persons meeting, at a minimum, the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44716, September 29, 1983) for the appropriate resource type.

2. Historic Preservation Fund

- a. KDOT will set aside \$500,000 in a fund to be administered by the Kansas SHPO, in consultation with the APA, for preservation in the City of Atchison. Up to 10 percent of this fund may be utilized by the SHPOs office to administer the program.
- b. The express purpose of the fund is to foster and support the preservation, rehabilitation, restoration, and interpretation of historic resources within Atchison. Historic properties

- within the area of potential effect (APE) of the Amelia Earhart Memorial Bridge project will receive priority for preservation funding. Funding is not limited to properties inside the project corridor; however, historic preservation projects outside of the APE must be transportation-related (e.g., historic trails, ferries, bridges, roads, railroads, hotels, gas stations, roadside-diners, etc.). Funding also could be provided for museum displays, to secure speakers on historic bridge rehabilitation, or for peer exchanges at historic preservation conferences.
- c. In accordance with standard state and federal funding and granting procedures and guidelines, the Kansas SHPO will implement the fund in conjunction with the APA and other interested parties. They will determine the application procedures, selection process, funding levels, schedule, and any other issues relating to the preservation fund.
 - d. Funds will be transferred by KDOT to the historic preservation fund by October 1, 2008. Funding procedures will be established to make the fund available for project use within one year of receipt of monies from KDOT.
- 3. Historic Bridge Speaker** – KDOT will fund expenses to bring an historic bridge preservation expert to speak at a Kansas Transportation Engineering Conference, held annually at Kansas State University, by 2011.
- 4. Compliance with Historic Bridge Act [23 U.S.C. §144 (o)]**
- a. KDOT will make the Amelia Earhart Memorial Bridge available, either in its entirety or sections thereof, for removal with the understanding that the bridge will be reused at an offsite location.
 - b. In the event that the bridge, or a section thereof, is reused, KDOT will offer funds to the party moving the bridge, or section thereof. If the main span is moved, \$200,000 (an amount equal to the demolition cost) will be available to said party. If a section of the bridge is moved, funds will be available in a prorated amount relative to the section being moved.
- 5. Review of Project Plans**
- a. KDOT will submit project plans to the Kansas SHPO as part of the normal Section 106 review process. These plans will include right-of-way and construction limits, contours, bridge design elements, etc. As usual, should any significant changes be made to the plans later in the design process, copies of the revised plans will be submitted to the SHPO for review.
 - b. SHPO may share the plans and request comments from the Consulting Parties so long as comments are received back to the SHPO to meet established project review timelines.

4.6 Coordination

KDOT and MoDOT have coordinated with their respective SHPOs and FHWA and have consulted with the NTHP, ACHP, KPA, and APA. The procedures to determine the level of documentation and mitigation for the Amelia Earhart Memorial Bridge will be set forth in an MOA, which will be finalized in the Record of Decision.

The public has been kept abreast of project developments throughout the Advanced Preliminary Engineering Study and this location study by use of newsletters, meetings, interviews and questionnaires. One public meeting, the public hearing, and several community, small group and public official meetings have occurred to update the public on the project progress and to request public input.

A Bridge Advisory Committee was formed (Building a Better Bridge, or B3) to address issues related to bridge location as well as bridge aesthetics and other technical issues. The

Committee met four times during the course of the study. Each meeting is summarized in a detail summary in the Public Involvement Log.

Most of the persons interviewed on the topic of removal of the Amelia Earhart Memorial Bridge are generally not opposed to its replacement and largely favor the use of the existing US59 corridor for a new bridge crossing. There have been numerous comments filed in the Public Involvement Log requesting that the old bridge be removed in favor of a new four-lane bridge.

A project summary of consultation and correspondence with the consulting parties is provided in Table 4-1.

4.7 Conclusion

There are no feasible and prudent alternatives that avoid the Amelia Earhart Memorial Bridge. The total avoidance alternative results in relatively higher environmental and social impacts as well as higher costs for reasons discussed in the 1999 Advanced Preliminary Engineering Study. It would result in a completely new crossing (on new location) of the Missouri River and its adjoining floodplain. Likewise, a total avoidance alternative loses its attractiveness to the traffic to and from Atchison. One of the primary comments from the residents of Atchison, as expressed in public meetings, surveys and mailouts, was for the alignment of the new bridge to be located in the same general corridor as the existing bridge.

Alternative 4H Rehab is the least harm of the two alternatives being considered for this project. However, the items discussed below make an argument against 4H Rehab being a prudent alternative.

Alternative 4H Rehab only partially meets the project's Purpose and Need

The following is from the project Purpose and Need for this project.

The purposes of the proposed Amelia Earhart Memorial Bridge improvements include:

1. provide a structurally sound, operationally efficient, economically feasible, and safe Missouri River crossing and roadway for US59 in the vicinity of Atchison, Kansas, that accommodates existing and projected traffic demands;
2. provide a facility that is consistent with current design criteria; and
3. provide a facility that accommodates economic sustainability and future development within the area and the region.

The need for the proposed action is based on a number of factors relating primarily to the current bridge's functional obsolescence and structural deficiencies. Other needs include transportation demand and economic development. The basic underlying needs of the project include the following.

1. The Amelia Earhart Memorial Bridge is structurally deficient primarily due to the moderate to severe corrosion of the steel superstructure.
2. Constructed in 1937/38, the bridge is an aging facility in poor condition. As it ages, the rate of deterioration accelerates resulting in increased maintenance costs.
3. The Amelia Earhart Memorial Bridge is functionally obsolete (lacks shoulders for emergency pull off) and was not designed for today's legal loads.
4. The existing bridge and roadway are congested during peak periods of flow and the level of service on the bridge is expected to degrade based on projected traffic growth rates.

Alternative 4H Rehab only partially meets the project's purpose, in that it only partially meets item number one and does not meet item number two. Also, Alternative 4H Rehab only partially addresses numbers one, two, and three of the needs for the project.

Table 4-1. Summary of Consultation

Date	From / To	Comments
12/8/02	Joan E. Adam, Exec. Director, APA / E. Dean Carlson, Sec. of Transp, KDOT	Atchison Preservation Alliance is concerned about proposed Amelia Earhart Bridge Replacement project & its potential effects on historic properties; APA would like to participate in the review process as a consulting party & to receive & comment on documents prepared; "consider the bridge to be a "signature" structure that enhances the unique and historic nature of our city."
1/6/03 *	E.D. Carlson, KDOT / J.E. Adam & Terry Knopke, President, APA	KDOT & MoDOT are currently working on the environmental documentation & location study phase of the Amelia Earhart Bridge project; KDOT will include Atchison Preservation Alliance as a consulting party in the Section 106 review process & will provide an opportunity for APA to review & comment on any documents prepared pursuant to Section 4(f); APA will be notified of any public meetings
1/29/03	B3 Meeting in Atchison	First meeting of the Building a Better Bridge Committee. Participants include community leaders. The project was introduced and the process was explained. The committee includes 20 members including a representative from the Atchison Preservation Alliance (APA).
1/30/03*	J. Adam-APA / Kris Norton, Project Engineer, KDOT	Email asking about over all process and schedule as well as specific questions regarding current ADTs, future enhancement funds, and system enhancement monies
2/03/03*	K. Norton-KDOT / J. Adam-APA	Email noting an EA will be completed and the comment period is 30 days from public circulation, we are in the early stages of Section 106 process, KDOT has documentation from the SHPO that the Amelia Earhart bridge is not "a rare or unusual structure nor does it possess the degree of significance to require preservation at any cost." The email noted that the current traffic is 9,304 VPD and future traffic is 15,000VPD (2030). Permitted loads (depending on axles and configuration) = 120,000 lbs (total load). And City of Atchison applied for system enhancement funds to improve safety, relieve congestion, improve access or enhance economic development.
2/19/03	K. Norton-KDOT / B3 Committee	Letter giving update on project and clarifying the bridge condition
3/05/03*	Meeting with APA at their Board Meeting in Atchison [First Consulting Parties Meeting]	Discussion & review of: Section 106 process; Current condition of bridge; Need for a new bridge; Typical planning process; Issues to be addressed; etc. In addition to APA board and members, KDOT, MoDOT, FHWA, and MACTEC were represented at this meeting.
3/06/03*	Leslie Gwynn / Julie Lorenz	Email thanking the chance to meet and requesting a copy of the Feasibility Study
3/10/03	L. Gwynn, APA / M. K. King, Archeologist, KDOT	E-mail query concerning number of "long span truss bridges" in Kansas & how many rehabilitated; number of "cantilever designed bridges in state dating to '30s & '40s"
3/13/03	M.K. King, KDOT / L. Gwynn, APA	E-mail response to query concerning types of bridges in Kansas; number that have been rehabilitated; etc.
3/19/03*	M. Thompson, PI Liaison, KDOT / J. Adam-APA	Initial response to questions & information requests made at 3/5/03 meeting with APA, indicating the type of information that will be provided & how it will be organized
3/27/03	J. Adam-APA / M. Thompson-KDOT	Acknowledging receipt of 3/19/03 letter; Request for additional information on: "SHPO determination as well as 4F process;" "maintenance and rehab costs along with the possibility of adding a bridge rehab specialty firm to the project team;" "the no-build alternative;" "comparable projects;" "the bridge sufficiency rating system;" "the 10-year/80 percent rule when using Federal funds for bridge repair;" & "traffic analysis"
3/27/03	M.K. King, KDOT / L. Gwynn, APA	E-mail with information on the number of truss bridges in Kansas. It was noted that the Amelia Earhart Bridge is not a Cantilevered Truss.
3/27/03	Public Meeting in Atchison	Brief presentations on: Project team; Overview of project & need for a new bridge; Issues that will be addressed during the study; & Public involvement activities; Prioritization Exercise – all guests place red, yellow & green dots to indicate their top, medium & lowest concerns about the project; Displays of project maps, aerial photographs, design concepts, etc. & Project Team & other KDOT & MoDOT staff available to talk with attendees
3/30/03	L. Gwynn, APA / M.K. King, KDOT	E-mail query about whether bridge is or isn't cantilever bridge & length of bridge
3/31/03	M.K. King, KDOT / L. Gwynn, APA	E-mail response concerning controversy over cantilever design issue & total bridge length vs. length of truss spans
4/04/03*	M. Thompson-KDOT / J. Adam-APA	Acknowledgement of 3/27/03 letter and KDOT would work diligently to address concerns.
4/23/03*	B. Pahl, Dir., Mountain/Plains Office, NTHP / J. Michael Bowen, Div. Adm., KS Div, FHWA	Letter states "The National Trust would strongly object to a decision by the FHWA not to prepare a full EIS for the proposed replacement of this historic bridge." The National Trust also requests "consulting party status".
5/13/03*	J.M. Bowen, FHWA / B. Pahl-NTHP	Letter states, "We believe that based on the information we have, an EA is the appropriate level of environmental document needed in accordance with NEPA" and grants the NTHP consulting party status.
5/20/03*	M. Thompson-KDOT / B. Pahl-NTHP	Letter acknowledging consulting party status and providing information on June 2, 2003 meeting.
5/25/03	Chris Taylor, Ex. Dir., Atchison County Historical Society / Robyn Horsky, HNTB	Email with letter attachment dated May 1, 2003. Email states" The board of the Atchison County Historical Society feels strongly that keeping the bridge crossing at the current (historical entrance site to Atchison) is paramount over other concerns related to preservation and have expressed their opinion in the enclosed letter."
5/28/03*	B. McNitt, P.M., MACTEC / B. Pahl-NTHP	Letter provides the Section 106 Packet for review prior to the 6/2/03 meeting.
5/28/03*	B. McNitt-MACTEC / J. Adam-APA	Letter provides the Section 106 Packet for review prior to the 6/2/03 meeting.
5/29/03	National Trust for Historic Preservation	Press Release – "National Trust Names Amelia Earhart Memorial Bridge, Atchison, Kans., One Of America's 11 Most Endangered Historic Places"
06/02/03*	Meeting with Atchison Preservation Alliance in Atchison [Second Consulting Parties Meeting]	Discussion & review of: SHPO determination of eligibility; Section 4(f) process; Costs; Comparable bridge rehabilitation projects & bridges; Bridge sufficiency rating system; 10-year rule; Traffic analysis; etc. In addition to APA board and members, KDOT, MoDOT, FHWA, and MACTEC were represented at this meeting.
06/10/03*	J. Adam-APA / K. Norton-KDOT	Letter requests "Guidance for Determining the Proper Environmental Document when assessing the Impacts of Historic Bridges" and the "Cooperative Agreement for Cultural Resources" between KDOT and SHPO.
06/19/03*	K. Norton-KDOT / J. Adam-APA	Letter of Transmittal for Cooperative Agreement for Cultural Resources (KSHS, KDOT) and FHWA/Coast Guard/SHPO Correspondence "as requested".
6/19/03	B3 Committee Meeting in Atchison	Discussion & review of: Study update; Overview of the evaluation process; Small group exercise; etc.

Table 4-1. Summary of Consultation

Date	From / To	Comments
6/19/03*	Robyn Horsky, HNTB / Amy Cole-NTHP	(Senior Program Officer & Regional Attorney) Email provides contact information for Amelia Earhart Bridge Project.
6/24/03*	J. Adam-APA / B. McNitt-MACTEC	Email expressing thanks for updates on a third party consultation regarding the rehab option.
6/25/03*	B. McNitt-MACTEC / J. Adam-APA	Email discussing proposal from Lichtenstein Consulting Engineers
6/27/03*	J. Adam-APA / B. McNitt-MACTEC	Email requesting clarification on which "Lichtenstein".
6/27/03*	B. McNitt-MACTEC / J. Adam-APA	Email clarifies third party evaluation to be conducted by Lichtenstein Consulting Engineers.
6/27/03	J. Adam-APA / Renate Wilkinson, MoDOT	E-mail regarding MoDOT's review of all bridges in NW Missouri and asking if this included the Amelia Earhart Bridge.
6/28/03*	J. Adam-APA / B. McNitt-MACTEC	Email clarifies that Abba Lichtenstein has a different firm now and hopes the APA can review the scope of work.
7/3/03	R. Wilkinson, MoDOT / J. Adam-APA	Reply to 6/27/03 e-mail. MoDOT did inspect the Amelia Earhart Bridge recently and "there was no newly developed deterioration which would warrant immediate closure and emergency repair."
8/3/03	J. Adam-APA / Deb Miller, Sec. of Transp., KDOT	Letter thanking Secretary Miller for the meeting during the week of July 28, 2003 to discuss the project.
8/5/03*	J. Adam-APA / B. McNitt-MACTEC	E-mail requesting the timeline for Lichtenstein Consulting Engineers work and also the status of the purpose and need statement.
8/5/03*	B. McNitt-MACTEC / J. Adam-APA	Reply to 8/5/03 e-mail. Lichtenstein Consulting Engineers have completed a site visit and detailed meeting with KDOT and is now reviewing information. No deadline has been set for their assessment. The purpose and need statement is being reviewed by the FHWA now.
8/5/03*	J. Adam-APA / B. McNitt-MACTEC	E-mail regarding the purpose and need statement and concern that it seems to preclude a rehab option. Request for clarification.
8/5/03*	B. McNitt-MACTEC / J. Adam-APA	Reply to 8/5/03 e-mail. The purpose and need section of the EA document is what is currently under review by the FHWA. This document only discusses what the purpose and need of the project is and does not exclude any alternatives which would help meet the purpose and need albeit new construction or rehabilitation.
8/26/03*	A. Cole-NTHP / R. Horsky, HNTB	Email requesting meeting minutes to June 2 Consulting Party Meeting.
8/27/03*	Lois DuMey-MACTEC / A. Cole-NTHP	Email sending the June 2, 2003 meeting minutes.
9/2/03*	J. Adam-APA / K. Norton-KDOT	Email notifies KDOT that APA has retained Abba Lichtenstein for evaluation of the rehab option and requesting the appropriate personnel meet with Mr. Lichtenstein on 9/19/03. Also requested the two most recent Structural Inventory Appraisals and load rating reports.
9/2/03*	J.E. Adam, APA / K. Norton-KDOT	Email states Abba Lichtenstein to evaluate rehab potential, and requests Structural Inventory Appraisals, and load rating reports. Also requests that KDOT/MACTEC meet with Mr. Lichtenstein on September 19.
9/2/03*	K. Norton-KDOT / J. Adam-APA	Email notes that the information is being compiled and that KDOT and MACTEC can meet on September 19.
9/3/03*	J. Adam-APA / K. Norton-KDOT	Email requests traffic accident data, ADTs, "latest under water reports", and any testing of steel.
9/4/03	K. Norton-KDOT / J. Adam-APA	Letter with enclosed information from email dated September 2, 2003. Packet included structural inventory and appraisal sheets and Kansas Bridge Inspection forms.
9/8/03*	J. Adam-APA / K. Norton-KDOT	Email indicating that it is not an option to cancel the meeting on 9/19 as Mr. Lichtenstein has already booked his flight. Suggests going ahead with available staff.
9/9/03*	K. Norton-KDOT / J. Adam-APA	Reply to 9/8/03 email indicating that none of the bridge staff are available on the 19 th and their attendance is important. Suggests planning another date.
9/10/03*	J. Adam-APA / K. Norton-KDOT	Reply to 9/9 email stating that they have no other option than to go ahead with the original meeting, in particular discussing calculations they discussed earlier and how they arrived at them.
9/10/03*	K. Norton-KDOT / J. Adam-APA	Reply to 9/10 email asking if those calculations are the AADT's
9/17/03*	J. Adam-APA / R. Wilkinson, MoDOT	E-mail requesting the Frazer report for a bridge evaluation person.
9/24/03*	R. Wilkinson, MoDOT / J. Adam-APA	Reply to 9/17 email indicating she was out of town, and inquiring if the Frazer report was still needed.
9/24/03*	J. Adam-APA / R. Wilkinson, MoDOT	Reply to 9/24 email indicating she would still like to see the Frazer report.
9/30/03	J. Adam-APA / K. Norton-KDOT	Letter with Abba Lichtenstein's notes from his visit to Atchison and review of the June 2, 2003 minutes from meeting with KDOT and APA
10/15/03	M. Thompson-KDOT / J. Adam-APA	Letter providing information that the APA requested regarding FraserDesign report and Load Rating Calculations
10/20/03*	A. Lichtenstein, McMullan&Assoc. / T. Knopke, APA	Transmittal of McMullan & Associates' "Report summarizing our activities and findings in connection with" the Amelia Earhart (AE) Memorial Bridge
11/06/03	J. Adam-APA / K. Norton-KDOT	Fax of the report from Abba Lichtenstein and press release prepared by APA.
11/13/03	J. Adam-APA / M. Thompson-KDOT	E-mail request of Lichtenstein Consulting Engineers report prepared for KDOT.
11/17/03	M. Thompson-KDOT / J. Adam-APA	E-mail reply to 11/13/03 request. A copy of the Lichtenstein Consulting Engineers report was e-mailed and faxed to Ms. Adam.
11/24/03*	B. McNitt-MACTEC / A. Cole-NTHP	Transmittal of report prepared by Lichtenstein Consulting Engineers, "The Amelia Earhart Bridge Over the Missouri River: Review of the Unit 5 Rehabilitation Program"
11/24/03*	B. McNitt-MACTEC / J. Adam-APA	Transmittal of report prepared by Lichtenstein Consulting Engineers, "The Amelia Earhart Bridge Over the Missouri River: Review of the Unit 5 Rehabilitation Program"
1/05/04*	B H. Pahl-NTHP / Don Klima, Dir., Office of Fed. Agency Programs, ACHP	Requesting "the Advisory Council's involvement in the Section 106 review now underway for the Amelia Earhart Memorial Bride that crosses the Missouri River at Atchison, Kansas." "To date, the Section 106 process has led to several meetings with KDOT, but no discussion about mitigation has begun."

Table 4-1. Summary of Consultation

Date	From / To	Comments
1/08/04*	A. Cole-NTHP / B. McNitt-MACTEC	Acknowledgment of receipt of 11/24/03 letter and Lichtenstein report; Query concerning "schedule for carrying out consultation with us and other consulting parties under Section 106 of the National Historic Preservation Act." Transmittal of copy of letter "recently sent to Advisory Council on Historic Preservation seeking their participation in this process. We are also concerned about your plans to respond to the preservation requirements of Section 4(f) of the DOT Act of 1966."
1/13/04	B3 Committee Meeting in Atchison (Third meeting of the Committee)	Discussion & review of: Project activities since June; Environmental investigations; Bridge rehabilitation methods & costs; Preliminary bridge & roadway alternatives; Access to Winthrop; General costs; Evaluation process; etc.
1/14/04*	B. McNitt-MACTEC / A. Cole, HNTB	Email acknowledging Ms. Cole's letter dated 1/8/04 and states information is being prepared for the consulting parties regarding rehab analysis, ongoing activities, Section 4(f) concerns, overall schedule and bridge type.
1/14/04	J. Adam-APA / B. McNitt-MACTEC	E-mail stating concern over lack of information presented on preservation at B3 Meeting on 1/13/04 and a request for life-cycle cost analysis for bridge.
1/14/04	B. McNitt-MACTEC / Joan Adam, APA	Reply to 1/14/04 e-mail. Offer to provide life cycle cost analysis when finalized.
1/29/04*	J. Adam-APA / Bruce McNitt-MACTEC	Follow up on 1/14 email regarding the lack of alternative analysis. States that life cycle-cost analysis is not the only determining factor and requests a meeting with the consulting parties.
1/30/04	K. Norton-KDOT / B3 Committee and those that attended meeting	Transmittal of the 1/13/04 B3 Meeting Summary
2/02/04*	K. Norton-KDOT / A. Cole-NTHP	Response to 1/8/04 letter to B. McNitt & B. Pahl's 1/5/04 letter to Advisory Council; Summary & update on: Status of Section 106 process & preliminary bridge alternatives under consideration; Identified historic properties (listed or eligible for listing on NRHP); Section 4(f); & Draft EA schedule; Life cycle cost analysis information to be provided when finalized; Request for clarification of concerns about responding to preservation requirements of Section 4(f); Intention to continue consultation with discussion of mitigation once project impacts & effects have been determined
2/23/04*	B. McNitt-MACTEC / A. Cole-NTHP	Email discusses the next consulting parties and what is anticipated to be included (i.e., alternatives, impacts) and expecting input from the NTHP and APA regarding alternatives.
2/23/04*	B. McNitt-MACTEC / J. Adam-APA	Email updating APA on discussions with KDOT and FHWA regarding the next consulting parties meeting and anticipated discussions and attendees.
2/26/04*	B. McNitt-MACTEC / A. Cole-NTHP; J. Adam-APA	Email indicating upcoming consulting parties meeting and indicating that an informational packet will be sent from KDOT soon.
3/11/04*	K. Norton-KDOT / B. Pahl-NTHP; J. Adam-APA	Letter inviting the NTHP to the Section 106 Consulting Party Meeting to be held on April 6, 2004. Local media were also invited.
3/31/04*	B. McNitt-MACTEC / A. Cole & B. Pahl-NTHP; D. Klima, ACHP; J. Adam; R. Pankratz-KSHS; M. Miles-MO SHPO	Letters with handouts (map, agenda, P&N, and Life Cycle Cost Analysis) for upcoming meeting on 4/6/04.
4/07/04	Third Consulting Party Meeting	This meeting provided a project update and focused on the P&N, rehabilitation of the Amelia Earhart Bridge (Lichtenstein Consulting Engineers Report, McMullen Associates Report, Life Cycle Costs), other Section 106 properties, and Preliminary Bridge Alternatives. Members of the media were also included.
4/16/04*	A. Cole-NTHP	Kris Norton-KDOT and Bruce McNitt-MACTEC
4/19/04*	K. Norton-KDOT / A. Cole-NTHP&McNitt-MACTEC	Reply to 4/16/04 email verifying how many copies.
4/21/04*	K. Norton-KDOT / A. Cole-NTHP	Letter providing KDOT's original items/costs for rehab and KS Inspection Form
4/22/04*	L. DuMey-MACTEC / A. Cole-NTHP	Letter of transmittal providing 2 sets of Preliminary Bridge Alternatives Figures
4/26/04*	A. Cole-NTHP / L. DuMey-MACTEC	In a telephone conversation, Amy requested a narrative/text describing the preliminary bridge alternatives.
4/27/04*	J. Adam-APA / K. Norton-KDOT	Letter providing APA comments that include: (1) an EIS to be completed, (2) apparent inconsistency on costs, (3) insufficient MoDOT funds could support a rehab option and (4) lack of consultation on the demolition of the bridge.
4/28/04*	L. DuMey-MACTEC / A. Cole-NTHP	A narrative describing the preliminary bridge alternatives was emailed to the NTHP.
4/28/04*	A. Cole-NTHP / J.M. Bowen, FHWA	Letter providing the following comments: (1) EIS should be completed, (2) one rehab alternative should be carried forward, (3) additional information should be developed about how Alternatives 4B, 4E, and 4H could be rehabilitated (4) rehab and keeping the historic bridge is an extremely viable option and should be further developed.
4/29/04*	C. Legard-ACHP / J.M. Bowen, FHWA	Letter providing the following comments: (1) delete "Provide a facility that is consistent with current design criteria" from the P&N, and (2) include at least one rehabilitation alternative as the existing bridge is a "beautiful example of historic multi-span through truss bridge and one of the few remaining on the Missouri River."
8/23/04*	K. Dunn-FHWA / C. Legard-ACHP	Letter noting that the no build and two build bridge alternatives would be carried forward in the Draft EIS.
8/23/04*	K. Dunn-FHWA / A. Cole-NTHP	Letter noting that the no build and two build bridge alternatives would be carried forward in the Draft EIS.
8/24/04*	K. Norton-KDOT / J. Adam-APA; A. Cole-NTHP; C. Legard-ACHP	Letter noting that the no build and two build bridge alternatives would be carried forward in the Draft EIS. Also enclosed is the media release.
8/26/04*	L. DuMey-MACTEC / A. Cole-NTHP; J. Adams-APA; C. Legard-ACHP	Email with the Final Meeting Minutes provided to all attendees of the Consulting Party Meeting held April 6, 2004.
10/05/04*	M. Lieb-APA / M. Thompson-KDOT	Email requesting "criteria driving the decision making process."

Table 4-1. Summary of Consultation

Date	From / To	Comments
10/12/04*	L. DuMey-MACTEC / M. Lieb-APA	Telephone conversation requesting clarification on the information requested. Determined that P&N statement would provide the information Mark Lieb was requesting and would send him a copy. Encouraged Mark to review Joan Adams's file on the proposed project for other background information.
10/12/04*	L. DuMey-MACTEC / M. Lieb-APA	Letter of Transmittal –provided Mark Lieb with the P&N Statement.
11/24/04*	A. Cole-NTHP / K. Norton-KDOT	Email requesting raw data used to calculate Sufficiency Ratings for 2001 and 2002, the Fracture Critical Inspection Report from 5/12/03, and the KDOT Bridge Inspection Manual.
12/2/04*	K. Norton-KDOT / J. Adam-APA; A. Cole-NTHP; C. Legard-ACHP	Letter providing updated Life Cycle Cost Analysis.
2/3/05	B3 Committee Meeting in Atchison (Fifth Meeting)	This meeting reviewed the bridge alignment alternatives retained for further study and depicted several bridge types appropriate for this crossing. J. Adam preferred the two span truss with the rehab option in this meeting. Julie Lieb had several questions on the traffic counts. As the B3 Committee had previously reviewed traffic counts, Ms. DuMey suggested that she ask her questions after the meeting. Ms. Lieb left her business card with M. Thompson.
2/8/05*	L. DuMey-MACTEC / Julie Lieb	Phone conversation, Ms. Lieb stated that she was looking for traffic count info regarding the proposed project. I explained that I had sent the Purpose and Need to Mark Lieb (her husband) last October but could forward another copy if needed. Her husband still had the Purpose and Need. I also explained that J. Adam had the APE Feasibility Study and that traffic information was also included in that document. I gave her my direct phone number so that she could call me for any other information.
3/7/05	K. Dunn-FHWA / C. Legard & D. Klima-ACHP; A. Cole & B. Pahl-NTHP; J. Adam & T. Knopke-APA; J. Chinn-KS SHPO; M. Miles-MO SHPO; R. Reeder-MoDOT; J.M. Bowen & M. Masuda-FHWA	Invitations to Consulting Parties meeting to be held on March 29, 2005. Local media were also invited.
3/10/05*	K. Dunn-FHWA / D. Klima, ACHP	Letter discusses next Consulting Party meeting (March 29, 2005) and asks ACHP to advise FHWA of ACHP's decision regarding participating as a consulting party on this project.
3/29/05	Fourth Consulting Parties Meeting	Review and discussion of the two alternatives (rehab and replacement), three bridge types (tied arch, single truss, and double truss), and potential effects to properties eligible for the NRHP. Present were representatives from the NTHP, APA, ACHP, KDOT, MoDOT, FHWA, and KS SHPO. Members of the media were also included.
4/25/05*	J.M. Bowen, FHWA / J.A. Chinn, KS SHPO	FHWA transmittal of determination of effect of project on six historic Kansas properties identified within the project's APE that are listed or eligible for listing on the NRHP: Amelia Earhart Bridge – adversely affected by either alternative; Trinity Episcopal Church – no adverse effect; Railroad Draw (Swing) Bridge – no adverse effect; Bridge Tender's Office – no adverse effect; Blish Mize & Silliman Building – no adverse effect; and Wherrett-Mize Drug Company Building – no adverse effect.
4/28/05*	S. Vogel, KDOT / C. Legard & D. Klima-ACHP; A. Cole & B. Pahl-NTHP; J. Adam, T. Knopke, & M. Lieb-APA; J. Chinn-KS SHPO; M. Miles-MO SHPO	Letters sent to Consulting Parties to notify them that the FHWA has completed assessment of adverse effects on the six Kansas properties identified within the project's APE that are listed or eligible for listing on the NRHP and to provide the results of that assessment. Included a copy of the April 25, 2005, letter and table from FHWA to KS SHPO detailing results of the adverse effect assessments.
4/28/05	S. Vogel, KDOT / J. Harcourt, T Prawl, & R. Reeder-MoDOT	Letters sent to Interested Parties to notify them that the FHWA has completed assessment of adverse effects on the six Kansas properties identified within the project's APE that are listed or eligible for listing on the NRHP and to provide the results of that assessment. Included a copy of the April 25, 2005, letter and table from FHWA to KS SHPO detailing results of the adverse effect assessments.
5/10/05	C. Davis, KSHS / M.K. King, KDOT	Email requesting information "about KDOT's exploration of ways to lessen the impact of the project on the historic bridge for the project that includes repair of the existing bridge and installation of a new parallel bridge" (e.g., Jersey barrier, changes to railing, etc.).
5/11/05	KDOT ESS	Submitted the Environmental Impact Statement Review. That document summarized the Section 106 process through the Assessment of Adverse Effects.
5/18/05	M.K. King, KDOT / A. Cole-NTHP; C. Legard-ACHP; J. Adam, T Knopke, & M. Lieb-APA; C. Davis & P. Zollner, KSHS; K. Dunn-FHWA	Email to Consulting Parties to notify them of date and time of Fifth Consulting Parties meeting to be held on June 15.
5/25/05*	C. Davis, KSHS / J.M. Bowen, FHWA	SHPO staff concurs with FHWA's determination of adverse effect for the two bridge project alternatives as proposed; however, "our staff has determined that if KDOT engineers propose a Two-Lane Rehabilitation alternative that successfully incorporates the existing handrail with a new concrete safety barrier, the project may not constitute an adverse effect."
6/7/05*	S. Vogel, KDOT / C. Legard & D. Klima-ACHP; A. Cole & B. Pahl-NTHP; J. Adam, T. Knopke, & M. Lieb-APA; J. Chinn-KS SHPO; M. Miles-MO SHPO; J. Harcourt, T Prawl, & R. Reeder-MoDOT; A. Masuda & J. Bowen-FHWA	Letters inviting ACHP, NTHP, APA, KS SHPO, and MoSHPO to Consulting Party meeting to be held on June 15, 2005. Included with the invitation were: a copy of the May 25, 2005, letter from KS SHPO concurring with the determinations of effect; a summary of additional information requested by, and provided to, Consulting Party members; and copies of conceptual renderings of the proposed preservation of the existing handrail. Local media were also invited.
6/7/05*	M. Fletcher, KDOT / C. Davis & P. Zollner-KSHS; A. Cole-NTHP	Email sent to KS SHPO with additional information and attached cross sections from the consultant in response to 5/10/05 request to evaluate the feasibility of preserving the existing bridge handrail and a response from Road Design regarding added structural elements and alternatives.
6/15/05	Fifth Consulting Parties Meeting	Briefly reviewed questions and information requests posed since previous consulting party meeting. Meeting focused on consideration of possible mitigation for adverse effects for the rehab and the replacement alternatives. Present were representatives from the NTHP, APA, ACHP, KDOT, MoDOT, FHWA, HNTB, KS SHPO, and MO SHPO.

Table 4-1. Summary of Consultation

Date	From / To	Comments
6/15/05*	D.L. Klima-ACHP / J.M. Bowen, FHWA	Notification of ACHP decision to participate in Section 106 as a consulting party since "Criterion (3) of Appendix A is met because of the controversy surrounding the original proposal to demolish and replace the historic bridge."
6/17/05*	John M. Fowler-ACHP / Mary Peters, FHWA	Notification of ACHP decision to participate in Section 106 as a consulting party since "Criterion (3) of Appendix A is met because of the controversy surrounding the original proposal to demolish and replace the historic bridge."
6/21/05	Lichtenstein / Consulting Parties	Copy of report is emailed
7/1/05	Consulting Parties	Minutes of June 15, 2005 meeting is emailed to consulting parties.
7/1/05	M.K. King, KDOT / A. Cole-NTHP; C. Legard-ACHP; J. Adam, T Knopke, & M. Lieb-APA; C. Davis & P. Zollner, KSHS; Alison Dubbert, Mo SHPO; T. Prawl, MoDOT	Email with an attachment containing a copy of the minutes of the June 15, 2005, Section 106 Consulting Parties meeting.
7/8/05*	M. Peters, FHWA / J.M. Fowler, ACHP	Letter acknowledging receipt of notice of ACHP decision to participate in consultation.
7/12/05*	J. Joslin-KPA / J.M. Bowen, FHWA	Letter requesting that the Kansas Preservation Alliance, Inc. "would like to participate actively in the review process, as a 'consulting party' under Section 106 of the NHPA, pursuant to 36 C.F.R. § 800.2(c)(6)."
7/18/05*	J. Bowen-FHWA / Janine E. Joslin, KPA	Letter responding to KPA request to become a consulting party in the Section 106 review process indicating that they will be notified of future meetings and added to distribution list to receive review documents on the project.
8/19/05	M. Fletcher, KDOT / A. Cole-NTHP; C. Legard-ACHP; J. Adam, T Knopke, & M. Lieb-APA; J. Joslin, KPA; C. Davis & P. Zollner, KSHS; A. Dubbert-MO SHPO; T. Prawl-MoDOT; Kurt Dunn-FHWA	Email to consulting parties with attached summary of rehabilitation options requested at June 15, 2005, Consulting Parties Meeting.
8/23/05*	M.K. King, KDOT / Consulting or Interested Party	Letters sent to consulting and interested parties with copy of the Rehabilitation Summary for the Amelia Earhart Memorial Bridge over the Missouri River prepared by KDOT and HNTB engineers based on requests by consulting parties at the June 15, 2005 Consulting Parties meeting.
8/23/05*	M.K. King, KDOT / A. Cole & B. Pahl-NTHP; C. Legard & D. Klima-ACHP; J. Adam, T Knopke, & M. Lieb-APA; J. Joslin & K. Bower-KPA; J. Chinn-KS SHPO; C. Davis & P. Zollner-KSHS; M. Miles-MO SHPO; R. Reeder, Toni Prawl, & J. Harcourt-MoDOT; A. Masuda & K. Dunn-FHWA	Email sent to consulting and interested parties with copy of the proposed Memorandum of Agreement (MOA) commitments for inclusion in the preliminary Draft Environmental Impact Statement (Draft EIS).
8/25/05	J. Adam-APA / M.K. King, KDOT	Email query as to whether or not the MOA commitments are finalized or if they "there is still room for tweaking." Also query as to when the MOA will be agreed to and signed.
8/26/05	M.K. King, KDOT / J. Adam-APA	Email response that "there is still room for tweaking" in the MOA commitments and that the MOA will be finalized and signed sometime between the public hearing on the Draft EIS and the Final EIS. Additional comments are welcomed.
9/27/05	J. Adam-APA / M.K. King, KDOT	Email query concerning a presentation by a KDOT engineer at an Atchison City Commission meeting regarding a "new, 4 lane bridge plan that hasn't been (presumably) mentioned earlier. ... Is KDOT still developing plans for either option?"
10/17/05	M.K. King, KDOT / J. Adam-APA	Email response with Kris Norton's reply to query concerning Bob Lyon's (HNTB) presentation. It did not concern new bridge alternative(s). It focused on scour model analysis and interaction between the railroad bridge, existing bridge, and new bridge piers (for both alternatives).
2/9/06	J. Chinn & P. Zollner-KSHS / J. Bowen-FHWA	KSHS determination of adverse effects.
4/26/06	Adam-APA / J. Bowen-FHWA	Comments on the Draft EIS.
5/01/06	Cole-NTHP / J. Bowen-FHWA	Comments on the Draft EIS.
5/30/06	C. Vaughn-ACHP / J. Bowen-FHWA	Comments on the Draft EIS.
7/19/06	J. Knowles-FHWA / C. Vaughn-ACHP, J. Adam-APA, A. Cole-NTHP	Response to comment letter.
9/14/06	K. Norton-KDOT / J. Kowach-KDOT	Memorandum regarding conference call discussion points with Section 106 consulting parties
10/6/06	A. Ferster / J. Bowen-FHWA	Letter communicating the serious concerns of the Atchison Preservation Alliance and the National Trust
4/10/07	J. Kowach and S. Vogel-KDOT / C. Legard-ACHP, D. Klima-ACHP, J. Bowen-FHWA, R. Reeder-MoDOT, J. Chinn-SHPO KSHS, M. Miles-Missouri SHPO, A. Masuda-FHWA, A. Cole-NTHP, B. Pahl-NTHP, J. Adam-APA, J. Joslin-KPA	Transmittal for the final draft memorandum of agreement

Removal of the bridge would be done under the 4H Rehab Alternative in 30 years

Under the 4H Rehab Alternative, rehabilitation of the existing structure will be designed based on a 30-year service life. After 30 years, the existing structure would be removed and a new structure constructed. This is the most cost-effective rehabilitation option. Rehabilitation extending past 30 years would require an increase in the scope of the rehabilitation alternative, an extensive maintenance program, and a second major rehabilitation project. Estimated additional cost to keep the structure in use comparable to a new structure (75 years) would be approximately \$27 million (2009 dollars) over the 30-year rehab/replacement option plus additional agency maintenance and engineering costs. Increasing the life of the existing structure to 75 years would not decrease the life cycle costs. Therefore, a rehab alternative that would maintain the existing structure beyond 30 years would not be feasible and prudent.

The cost of Alternative 4H Rehab is higher than Alternative 4H' Replacement

Estimated project costs including construction, right of way, utilities, and engineering for Alternatives 4H Rehab and 4H' Replacement are \$98.3 million and \$88.0 million, respectively. The difference in engineering costs for the two options can be attributed to the following and are outlined in Table 4-2:

- 4H' Replacement Alternative – Engineering design and construction engineering of a single 4-lane structure.
- 4H Rehab Alternative – Engineering design and construction engineering of a new two-lane structure and analyze, design, and oversee construction on the rehabilitation of the existing structure. Additional costs (construction inspection and construction costs) associated with an additional two years of construction. Additional costs associated with the complexity of detailed design associated with rehabilitation of the existing structure.

Table 4-2. Preliminary Cost Estimates for the Reasonable Alternatives*

Description	Alternative	
	4H Rehab	4H' Replacement
Bridge		
Roadway (Station 716+40 to Station 724+50 (Atchison))	\$3,420,200	\$2,627,200
Roadway (Station 747+50 to Station 781+83 (Winthrop))	\$3,867,000	\$3,298,600
Bridge		
West Approach	\$2,610,800	\$4,052,900
Main Span	\$13,053,800	\$18,238,000
River Approach	\$6,962,000	\$10,807,700
East Approach	\$3,481,000	\$5,403,000
Remove Existing Bridge or Rehabilitation	\$12,187,900	\$930,800
Subtotal Bridge	\$45,582,700	\$45,359,100
Contingency (20 percent)	\$9,116,600	\$9,071,900
Total Construction Cost (FY 2009)	\$54,699,300	\$54,431,000
Construction Engineering	\$13,053,600	\$8,165,000
Right of Way Cost	\$9,421,000	\$7,071,000
Utility Cost	\$2,836,000	\$2,129,000
Preliminary Engineering	\$5,530,800	\$3,460,000
Total Project Cost (FY 2009) (end in Winthrop)	\$85,540,700	\$75,256,000
Roadway (Station 781+83 to Station 924+94) in Missouri (FY 2009), end at Route 45/US59	\$12,774,400	\$12,774,400
Life Cycle Cost (entire length, Atchison to Winthrop) (millions)	\$ 90.2	\$ 71.7
Total Project Cost (FY 2009)	\$98,315,100	\$88,030,400
* All costs are inflated to Fiscal Year 2009 dollars. Roadway costs in Missouri ending at US59/Route 45 include 20 percent contingencies, preliminary engineering, construction engineering, right of way, and utilities.		
Source: KDOT, 2004-2005 and MACTEC, 2005.		

The right of way cost for Alternative 4H Rehab is higher with the acquisition of three businesses in Winthrop that are not impacted under Alternative 4H' Replacement: the Whiskey Rebellion,

the Fisca gas station and the acquisition, remediation and potential cleanup of the Ferrell Gas property [underground storage tanks (UST)]. The Fisca station is also anticipated to have USTs and contaminated soil that may require remediation. The Whiskey Rebellion may or may not have tank issues associated with the property. These impacts are due to the grade differential between the two bridge approaches at the intersection of US59 and Fowler Avenue in Winthrop. This separation created the need for a frontage road that impacts these businesses.

Additionally, Alternative 4H Rehab has a higher life-cycle cost, based on a 75-year life-cycle, than the Preferred Alternative, Alternative 4H' Replacement. Alternative 4H Rehab results in a life cycle cost \$18.4 million higher than for Alternative 4H' Replacement.

Detailed cost estimates and life cycle costs are presented in Technical Report A – Atchison Bridge Study Report, September 2005.

Alternative 4H Rehab will not have the same load carrying capacity as Alternative 4H' Replacement

Currently there are no weight limits posted. However the existing bridge cannot accommodate superloads (a vehicle transporting a load in excess of 150,000 pounds gross weight) because of the corroded steel in the superstructure. The design of the existing bridge utilized high strength silicon steel. This resulted in thinner plates. Thinner plates are more susceptible to section loss due to corrosion. If conventional steel had been used, we would not have had such a large decrease in structural capacities due to corrosion. The rehabilitation of the existing bridge only extends the service life, it does not accomplish significant strengthening and will not accommodate superloads. This would restrict the westbound superload truck traffic under the 4H Rehab Alternative. A new bridge would be designed to carry superloads and there would be no restrictions in either direction.

Superloads are a small fraction of the total volume of traffic carried on the state transportation system, but they are important to the economy of Kansas and surrounding states. Typically, what is being hauled is something important to the capacity of the economic infrastructure; items such as casting equipment, wind generation turbines, or power plant boilers. Not having access to the state highway system for superloads can be a disincentive for heavy industries to locate in a particular community.

US59 is currently a two-lane facility, but it would be incorrect to assume that there is no, or only minimal demand by “freight vehicles” in Atchison. K-7, a north-south route which intersects US59 at Atchison, is a designated Heavy Truck route by KDOT. Bridges on this route are designed to meet the Kansas Overload Provision.

From 1999 to 2007, 451 superloads crossed the US36 Bridge at St. Joseph and one superload crossed the K-92 Bridge at Leavenworth. In 1992, 98 superload permits were issued in Kansas; by 2002 that had grown to 682; as of October 19, 2006, the number was 1,248. In addition, should the existing bridge deteriorate further, additional load limits could be implemented, and superloads would need to consider alternate routes (such as Leavenworth or St. Joseph), resulting in longer trips. While KDOT does not record request for superload permits across the existing structure, the above statistics show a need for superloads to cross the Missouri River in the region.

Alternative 4H Rehab has restrictive vertical clearance

The existing bridge has a vertical clearance of 15 feet. This does meet the minimum criteria for an existing bridge but would not meet the minimum criteria for a new bridge. The 4H' Replacement Alternative would exceed the minimum vertical clearance of 16 feet. Under the

4H Rehab Alternative, vehicles approaching the 15-foot clearance would be restricted on the westbound bridge and would be rerouted to another crossing.

During a 36-month period between 2004 and 2007, there were more than 200 over-height permits issued for vehicles routed through Atchison and Leavenworth counties. Sixty-one of these vehicles either originated or were destined to this region. Generally, over-height vehicles are routed on US and state highways, such as US59, because there are fewer grade separations than on interstates. The closest Missouri River crossings are Leavenworth, Kansas, 25 miles south of Atchison and St. Joseph, Missouri, 35 miles north of Atchison.

Alternative 4H Rehab would not meet current design criteria for shoulder width

A shoulder is the portion of the roadway contiguous with the travel way that can accommodate stopped vehicles and provide horizontal clearance to obstructions. The existing bridge concrete floor slab (deck) is 29 feet 2 inches wide and includes two 12-foot lanes with a 2-foot 7-inch raised curb section on each side. This provides a 24-foot bridge roadway width with no shoulders. The raised curb section (1 foot high) provides some protection for the structural bridge members and accommodates the bridge handrail. The existing raised curb and handrail do not provide adequate protection for the bridge's structural members nor do they satisfy current safety (crash-worthy) criteria. The rehabilitation alternative would require the installation of permanent concrete safety barrier (15 inches wide) along the bridge deck to satisfy current safety criteria and to adequately protect the bridge. The existing handrail on the bridge would be removed and reinstalled behind the concrete safety barrier at approximately the same height and offset currently on the bridge. This would accommodate a 24-foot bridge roadway width and no shoulders. Roads and bridges with a narrow traveled way, narrow shoulders, and an appreciable traffic volume tend to provide poor service, have a relatively higher crash rate, and need frequent and costly maintenance. The narrowing or loss of shoulders, especially on structures (bridges) may cause serious operational and safety problems. Typical sections for both alternatives are depicted in Figure 4-2.

This segment of US59 is on the National Highway System (NHS) and is functionally classified as a principal arterial. AASHTO criteria (chapter 7), for new and/or existing bridges to remain in place on arterials, requires shoulders. For new bridges, the approach roadway width should be carried across the structure. For existing bridges to remain in place, the minimum shoulder width can be 2 feet, requiring a minimum roadway width of 28 feet across the existing bridge. KDOT design shoulder widths require 10-foot shoulders for this route with the associated traffic and truck volumes. Shoulders provide advantages that include:

- Space is provided away from the traveled way for vehicles to stop because of mechanical difficulties, flat tires, or other emergencies.
- Space is provided for evasive maneuvers to avoid potential crashes or reduce their severity.
- The sense of openness created by shoulders of adequate width contributes to driving ease and reduced stress.
- Highway capacity is improved because uniform speed is encouraged.
- Highway capacity is better sustained during incidents such as stalled vehicles, accidents, and maintenance activities.
- Space is provided for maintenance operations such as snow removal and storage.

While the "Flexibility in Highway Design" guideline promotes flexibility in design criteria, it does not promote the violation of minimum criteria that are shown in the AASHTO Greenbook; rather it encourages the use of minimums when a range of criteria are given. It also does not promote the elimination of certain elements of the cross-section (shoulders). Further, the "Flexibility in

Highway Design” addresses structures on Local and Collector roads, but it does not provide guidance for flexibility on Arterials.

From 1998 to 2002, there were 24 reported crashes related to the Amelia Earhart Memorial Bridge (i.e., from 4th Street to 0.3 mile east of 4th Street) (KDOT) for a crash rate of 5.10 crashes per million vehicle miles (MVM). The statewide crash rate for this type of facility is 4.05 crashes per MVM. The actual crash rate for the bridge is higher than the statewide average for this type of facility.

It is not feasible under the rehabilitation alternative to increase the existing bridge width to accommodate the minimum shoulder width. The lack of shoulders constitutes a substandard condition for motorists and in this respect, the bridge is considered functionally obsolete. Therefore the 4H Rehabilitation alternative would not meet item number two of the purpose of this project.

A number of farmers own agricultural land in both Kansas and Missouri and utilize the existing Amelia Earhart Bridge to access their farmland. Farmers typically move oversized farming equipment over the existing bridge in the spring and the fall. Under the 4H Rehabilitation alternative, farm traffic would take up both lanes as they cross the rehabbed structure resulting in congestion and safety issues. Under the 4H' Replacement alternative the farm traffic could use the shoulder and outside lane in either direction allowing faster traffic to pass on the center lanes. This would promote safer more efficient traffic flow in the westbound direction.

The existing scour hole that is affecting the existing structure is an issue with Alternative 4H Rehab

As of the December 2000 Underwater Bridge Inspection, a 20-foot deep scour hole existed downstream of the older railroad swingbridge pier and immediately upstream of Pier 10 on the existing Amelia Earhart Memorial Bridge. At the upstream nose of Pier 10, approximately 27 feet of the foundation was exposed; however, the mud line or the ground elevation of the riverbed was still 31 feet above the bottom of the sub-base. The scour hole is now carefully monitored. The scour hole could present a threat if the existing structure were to be rehabbed and left in place. Monitoring of the scour hole will continue and if it worsens the structure could be shut down either temporarily or permanently.

It is important to note that the scour hole in question is not exactly at the pier. The hole exists between the railroad swing bridge and the current Amelia Earhart Memorial Bridge, indicating instability of the bed in this portion of the channel. Long-term remediation would require the construction of significant scour protection at the river piers of the existing railroad bridge and of the existing US59 bridge, if it were left in place. The protection would include sheet piling driven around the existing piers and into bedrock. The space between the sheet piling and the piers would then be filled with concrete. Simply filling the scour hole with crushed rock, would add another obstruction to flow at the streambed, in effect, increasing the obstructed flow during scour events and potentially increasing the scour effect on the piers immediately upstream (the railroad bridge) and downstream (the existing US59 bridge). Additionally the endangered pallid sturgeon is widely present in the Missouri River. Although it has not been reported in the scour hole between the bridges, USFWS personnel have indicated that the scour hole may provide suitable over-wintering habitat. Filling in the existing scour hole would affect this habitat.

This issue was the subject of a study by Dr. A. David Parr of the University of Kansas. In the conclusion of his 2006 report, *Investigation of Scour Potential for US59 over the Missouri River at Atchison using Fixed and Non-fixed Flow Boundaries*, he states: **“The existence of the scour hole between the railroad pier and existing pier no. 10 represents a clear warning that this region is highly susceptible to scour. It would be very risky to put a new pier**

downstream from this area. Moreover, I would not recommend any design alternate that included the continued long-term use of the existing US Hwy 59 Bridge.”

Alternative 4H Rehab can not address the issue of Pier 9 being a hazard to the navigation channel

Pier 9 of the existing bridge is located on the west bank of the Missouri River. In 1983, Pier 9 was damaged by a barge impact and was replaced. During the repair the bridge was closed for the summer of 1983 at a cost to KDOT of \$2,898,000. This does not include any of the attorney fees and the adverse travel costs that were incurred. In compliance with a maritime law that limits the liability of a barge owner to the value of the empty barge, the state was only reimbursed about \$100,000.

If the existing bridge is rehabbed, the location of Pier 9 will not change and will continue to be vulnerable to barge impacts, especially under flooding conditions, since the location of the navigational channel is 45 feet from this pier. This not only presents a safety issue to barge operators but could present safety issues to the traveling public on the bridge. Even if Pier 9 is protected through either a fendering system (piles in front of the pier) or a dolphin system (sheet piles filled with crushed rock), it does not preclude that it will not be damaged if impacted by a barge. Another impact to Pier 9 may not only damage the existing pier but could cause failure to the structure. An example of this occurred on May 26, 2002, in Webber Falls, Oklahoma at the Interstate 40 bridge over the Arkansas River. The bridge collapsed after being struck by a barge, killing 14 people who were traveling on the bridge at the time of impact. This bridge had pier protection. Additionally, pier protection further encroaches into the navigation channel.

A recent inspection shows “minor spalling” and may be an indication that the new pier has been subjected to a minor boat impact or floating flood debris impact. All new bridge alternates will have this pier located up on the bank completely out of the water. Since the existing pier is located in the navigation channel on the outside of a river bend, it is vulnerable to another future accidental barge impact.

Under the Preferred Alternative, the location of the new pier will eliminate the need for underwater inspection of the pier, the ongoing bank erosion problem, and the risk of future pier scour at this location.

Alternative 4H Rehab requires relocating the US59/Fowler Road intersection

Under the 4H Rehab alternative, the location of the US59/Fowler Road intersection needs to be relocated due to the grade differential between the two bridge approaches. This grade differential creates the need for a frontage road to the relocated intersection. This results in the following impacts:

- More businesses will be displaced (Whiskey Rebellion in Winthrop, Missouri; Fisca Station in Buchanan County, Missouri; and Ferrell Gas in Buchanan County, Missouri).
- Traffic patterns change in Winthrop because an access road would be required to access Fowler Avenue. Alternative 4H' Replacement keeps the at-grade intersection at Fowler Avenue and does not disrupt the existing traffic pattern.
- Six more acres of right of way acquisition are required
- An additional 5.5 more acres of floodplain are impacted.
- Impacts to the Fisca Oil Company Active Remediation Site which could present an environmental liability.

Both alternatives have an adverse effect on the Section 4(f) resource

The 4H Rehab Alternative and Preferred Alternative both result in an adverse effect to the existing bridge per a letter from the Kansas SHPO dated February 9, 2006. The rehab alternative would have the least harm on the resource in that it would not require the historic

structure to be removed. However, in a letter from Kansas SHPO dated June 24, 2002, the SHPO stated that “although the Amelia Earhart Bridge is eligible for listing on the National Register of Historic Places, it is SHPO’s opinion that it is not a rare or unusual structure nor does it possess the degree of significance to require preservation at any cost.”

Alternative 4H Rehab takes longer to construct than the Preferred Alternative

The 4H Rehab Alternative construction will take four years to complete. Construction of the Preferred Alternative will take two years to complete. This will subject the local and regional communities to the negative aspects of having an ongoing construction project in the area for two additional years.

Alternative 4H Rehab will ultimately require replacement of the existing bridge in approximately 30 years. This results in difficult construction issues involving the construction of a new bridge between two existing bridges, one of which (the Railroad Swing Bridge) has been determined eligible for the NRHP. This will also result in subjecting the local and regional communities to all the negative aspects (construction noise, traffic control and delays, dust, storm water runoff, etc.) of having an additional bridge construction project in the area. The Preferred Alternative does not have these issues.

The reduced construction time associated with the 4H’ Replacement Alternative (2 years to construct) versus the 4H Rehab Alternative (4 years to construct) provides benefits that include reduced traffic delay, fewer collisions and injuries associated with construction-related accidents, lower capital costs for maintaining traffic that are associated with highway construction projects, and lower construction engineering/construction inspection costs. Prolonged construction periods for highway projects is a major concern for road users, local businesses, and communities due to factors including congestion and user delays, loss or partial loss of access during construction, and loss of or perceived loss of business. These are factors that will occur during project construction regardless of the alternative; however, the significant reduction in construction time with the 4H’ Replacement Alternative is a substantial benefit to the affected businesses and thousands of road users when compared to the 4H Rehab Alternative.

Public support for Alternative 4H’ Replacement and minimal local support for Alternative 4H Rehab

Atchison Planning Commission approved Resolution of Support for the 4H’ Replacement Alternative on April 5, 2006.

Atchison City Commission signed Resolution of Support (2571) for the 4H’ Replacement Alternative on April 12, 2006.

From the public hearing, 85 percent of those polled were supportive of the 4H’ Replacement Alternative.

Results from the telephone survey indicate 75 percent of the community would be supportive of the 4H’ Replacement Alternative.

Conclusion

Based upon the above considerations, there is no feasible and prudent alternative to the use of the Amelia Earhart Memorial Bridge. Specifically, the above items collectively present unique problems that make the 4H Rehab Alternative not feasible and prudent. The Preferred Alternative (Alternative 4H’ Replacement) was identified as the only alternative that fully meets the project’s Purpose and Need and achieves the project transportation objectives and goals, while integrating a full consideration of the potential impacts to the human and natural

environments. Therefore, the only feasible and prudent alternative is 4H' Replacement, the preferred alternative. The proposed action includes all possible measures to minimize harm to the Amelia Earhart Memorial Bridge from such use.

Table 4-3. Summary Comparison of Alternatives 4H Rehab and 4H' Replacement

	4H Rehab	4H' Replacement
Meets the Project's Purpose and Need	No	Yes
Removal of Bridge	No/Yes*	Yes
Estimated Project Cost (in millions, 2009 dollars)	\$98.3	\$88.0
Load Carrying Capacity – Superloads	No	Yes
Vertical Clearance	15 feet	>16 feet
Current Design Criteria for Shoulder Width	No shoulders	10 feet
Inside Shoulder Width	0	2†
Outside Shoulder Width	0	10
Impacts Resulting from Scour Hole	Yes	No
Pier 9 – Potential for Barge Collision	Yes	No
US59/Fowler Road Intersection		
Business Displacements	11	8
Impacts to Travel Patterns/Accessibility - Winthrop	Moderate	Moderate**
Right of Way Acquisition	53.0 acres	46.7 acres
Floodplain Impact	88.7 acres	83.2 acres
Remediation Site		
Adverse Effect on Section 4(f) Resource	Yes	Yes
Construction Period	4 years	2 years
Public Support	See text	See text
* Under 4H Rehab, the existing bridge will be removed at the end of the 30-year rehab life. † Indicates a painted median 2 feet wide ** Travel patterns are slightly better for 4H' because it does not require a frontage road along the north side of US59.		

Exhibit 1

Memorandum of Agreement Among The Federal Highway Administration, The Kansas State Historic Preservation Officer, The Missouri Historic Preservation Officer, and The Advisory Council on Historic Preservation Regarding the Amelia Earhart Memorial Bridge

Whereas, the U.S. Department of Transportation, Federal Highway Administration (FHWA), is being requested to provide financial assistance to the Kansas Department of Transportation (KDOT) for the US-59 Bridge over the Missouri River between the City of Atchison in Atchison County, Kansas, and the City of Winthrop in Buchanan County, Missouri (also known as the Amelia Earhart Memorial Bridge), under KDOT Project No. 59-3 K-8238-01, Federal Aid Project No. NHS-K823(801) and NHS-K823(802); and

Whereas, the FHWA has determined that the preferred alternative for the proposed project, Alternative 4H Replacement, as described in the Final Environmental Impact Study, will have an adverse effect on historic properties, resulting in the demolition of the Amelia Earhart Memorial Bridge, an historic property eligible for inclusion in the National Register of Historic Places, and;

Whereas, the FHWA has determined that the preferred alternative for the proposed project will have no adverse effect upon the Trinity Episcopal Church, Atchison Railroad (Swing) Drawbridge, Bridge Tender's Office, Blish Mize & Silliman Hardware Company Building, and Wherrett-Mize Drug Company Building in Atchison, Kansas, and the Green Residence and Conner Cabins Cottage Court in Winthrop, Missouri, all historic properties listed on or determined eligible for inclusion in the National Register of Historic Places, and;

Whereas, the FHWA has consulted with the Kansas State Historic Preservation Office (KSSHPO) and the Missouri State Historic Preservation Office (MOSHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act [16 U.S.C. 470(f)]; and

Whereas, the MOSHPO has agreed that the KSSHPO will have jurisdiction with regard to the Amelia Earhart Bridge; and

Whereas, in accordance with 36 CFR §800.6(a)(1), the FHWA has notified the Advisory Council on Historic Preservation (Council) of its adverse effect determination with specified documentation and the Council has chosen to participate in the consultation pursuant to 36 CFR §800.6(a)(1)(iii); and

Whereas, FHWA also has consulted with the National Trust for Historic Preservation (NTHP), the Atchison Preservation Alliance (APA), and the Kansas Preservation Alliance, Inc. (KPA), and has invited these parties to concur in this Agreement; and

Whereas, the consulting parties do not all agree with FHWA's selection of Alternative 4H Replacement as the preferred alternative, but have participated in consultation to resolve the adverse effects of the alternative, should it be selected, to ensure that the mitigation measures developed meet the historic preservation needs of Kansas and the City of Atchison; and

Whereas, as the designated agent of FHWA, KDOT has notified Indian Tribes that may attach religious or cultural importance to affected properties in Atchison, and such tribes have raised no objection to the work proposed; and

Whereas, KDOT and the Missouri Department of Transportation (MODOT) have participated in the consultation and have been invited to be signatories in this Memorandum of Agreement; and

Now, therefore, FHWA, KDOT, the KSSHPO, the MOSHPO, and the Council agree that the undertaking shall be implemented in accordance with the following stipulations in consideration of the effect this undertaking will have on the historic property.

STIPULATIONS

FHWA will ensure that the following measures are carried out:

1. DOCUMENTATION OF THE AMELIA EARHART MEMORIAL BRIDGE

- a. Prior to authorizing demolition of the Amelia Earhart Memorial Bridge, KDOT will prepare three (3) copies of documentation of the bridge, including large format photographs, original bridge plans, and the Activity II and III historical reports.
- b. KDOT will conduct oral interviews with individuals who have personal knowledge of the history of the bridge, including its construction and opening. Interviewees will include Mr. Champ Faris who worked on the original construction of the bridge during the late 1930s, and Rod Dierking who was 10 years old when he rushed ahead of dignitaries on his bicycle at the bridge opening to be the first person across the bridge. The interviews will be documented using audio and/or video tape. Efforts will be made to encourage KTWU and Sunflower Journeys, or a similarly qualified entity, to conduct the interviews and professionally record them with an eye toward broadcasting the results.
- c. No later than July 1, 2008, KDOT will provide copies of documentation required in a and b above as donations to the collections of the Atchison County Historical Society Museum, the Atchison Public Library, the Kansas State Historical Society Library, the KSSHPO, and the MOSHPO for public use.
- d. All documentation has been or will be conducted and/or supervised by a person or persons meeting, at a minimum, the Secretary of the Interior's Professional Qualifications Standards (48 FR 44716, September 29, 1983) for the appropriate resource type.

2. HISTORIC PRESERVATION FUND

- a. KDOT will set aside \$500,000 in a fund to be administered by the Kansas SHPO, in consultation with the APA, for preservation in the City of Atchison. Up to 10% of this fund may be utilized by the SHPOs office to administer the program.
- b. The express purpose of the fund is to foster and support the preservation, rehabilitation, restoration, and interpretation of historic resources within Atchison. Historic properties within the APE of the Amelia Earhart Memorial Bridge project will receive priority for preservation funding. Funding is not limited to properties inside the project corridor; however, historic preservation projects outside of the APE must be transportation-related (e.g., historic trails, ferries, bridges, roads, railroads, hotels, gas stations, roadside-diners, etc.). Funding also could be provided for museum displays, to secure speakers on historic bridge rehabilitation, or for peer exchanges at historic preservation conferences.

- c. In accordance with standard state and federal funding and granting procedures and guidelines, the Kansas SHPO will implement the fund in conjunction with the APA and other interested parties. They will determine the application procedures, selection process, funding levels, schedule, and any other issues relating to the preservation fund.
- d. Funds will be transferred by KDOT to the historic preservation fund by October 1, 2008. Funding procedures will be established to make the fund available for project use within one year of receipt of monies from KDOT.

3. HISTORIC BRIDGE SPEAKER

KDOT will fund expenses to bring an historic bridge preservation expert to speak at a Kansas Transportation Engineering Conference, held annually at Kansas State University, by 2011.

4. COMPLIANCE WITH HISTORIC BRIDGE ACT [23 U.S.C. §144 (o)]

- a. KDOT will make the Amelia Earhart Memorial Bridge available, either in its entirety or sections thereof, for removal with the understanding that the bridge will be reused at an offsite location.
- b. In the event that the bridge, or a section thereof, is reused, KDOT will offer funds to the party moving the bridge, or section thereof. If the main span is moved, \$200,000 (an amount equal to the demolition cost) will be available to said party. If a section of the bridge is moved, funds will be available in a prorated amount relative to the section being moved.

5. REVIEW OF PROJECT PLANS

- a. KDOT will submit project plans to the Kansas SHPO as part of the normal Section 106 review process. These plans will include right-of-way and construction limits, contours, bridge design elements, etc. As usual, should any significant changes be made to the plans later in the design process, copies of the revised plans will be submitted to the SHPO for review.
- b. SHPO may share the plans and request comments from the Consulting Parties so long as comments are received back to the SHPO to meet established project review timelines.

6. POST-REVIEW DISCOVERIES

If potential historic properties are discovered or unanticipated effects on historic properties found, FHWA will make reasonable efforts to avoid, minimize, or mitigate adverse effects to such properties and follow the requirements of 36 CFR §800.13(b).

7. DISPUTE RESOLUTION

Should any signatory or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FHWA will consult with such party to resolve the objection. If FHWA determines that such objection cannot be resolved, FHWA will:

- a. Forward all documentation relevant to the dispute, including the FHWA's proposed resolution, to the ACHP. The ACHP will provide FHWA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FHWA will prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories, and concurring parties, and provide them with a copy of this written response. FHWA will then proceed according to its final decision.
- b. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, FHWA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FHWA will prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written reports.

- c. FHWA's responsibility to carry out all other actions subject to the terms of this MOA that are not subject to the dispute remain unchanged.

At any time during implementation of the measures stipulated in this MOA, should an objection be raised by a member of the public, FHWA will take the objection into account and consult with the objecting party, the SHPO, and the ACHP to resolve the objection.

8. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment or addendum to the Agreement will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

9. TERMINATION

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party will immediately consult with the other parties to attempt to develop an amendment per Stipulation 8, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, FHWA must either (a) comply with the requirements of 36 CFR §800.3-300.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR §800.7. FHWA will notify the signatories as to the course of action it will pursue.

10. If FHWA cannot carry out the terms of the Agreement, it will not take or sanction any action, make any irreversible commitment that would result in an adverse effect with respect to the National Register or eligible properties covered by the Agreement, or would foreclose the Council's consideration of modifications or alternatives to the replacement that could avoid or mitigate the adverse effect until the commenting process has been completed.

11. DURATION

This agreement shall terminate when its terms are carried out or within 10 (ten) years from the date of its execution, whichever is later.

Execution of this Memorandum of Agreement by FHWA, KDOT, the KSSHPO, the MOSHPO, and the Council, and implementation of its terms evidence that FHWA has afforded the Council an opportunity to comment on the effects of project NHS-K823(801) and NHS-K823(802) on historic properties.

SIGNATORIES

Approved: Federal Highway Administration

By: _____
J. Michael Bowen, Division Administrator

Date

Approved: Kansas Historic Preservation Officer

By: _____
Jennie A. Chinn, State Historic Preservation Officer

Date

Approved: Missouri Historic Preservation Officer

By: _____
Mark Miles, State Historic Preservation Officer

Date

Approved: Advisory Council on Historic Preservation

By: _____
John M. Fowler, Executive Director

Date

INVITED SIGNATORIES

Approved: Kansas Department of Transportation

By: _____
Jerome T. Younger, State Transportation Engineer

Date

CONCURRING PARTIES

National Trust for Historic Preservation

By: _____
Barbara Pahl, Executive Director

Date

Kansas Preservation Alliance, Inc.

By: _____
Janine E. Joslin, Executive Director

Date

Atchison Preservation Alliance

By: _____
Joan E. Adam, Executive Director

Date