

# Texas Department of Transportation

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May 8, 2008

## SECTION 106: DETERMINATION OF NO ADVERSE EFFECTS

McLennan County (Waco District)

CSJ# 0909-22-141

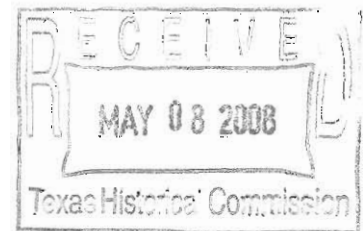
### Washington Avenue at the Brazos River, city of Waco

Ms. Adrienne Campbell

History Programs

Texas Historical Commission

Austin, Texas 78711



Dear Ms. Campbell:

In accordance with 36 CFR 800 and the first amended Programmatic Agreement for Transportation Undertakings, we are initiating Section 106 consultation for the above referenced project. We request agency review regarding the effects of the proposed undertaking on the 1901 NRHP-listed Pennsylvania truss bridge spanning the Brazos River in the city of Waco.

### Introduction

The Texas Department of Transportation (TxDOT), Waco District, proposes to rehabilitate the NRHP-listed through-truss bridge for continued use by vehicular traffic. I have included a project location map, and construction plan sheets for your reference.

### Identification Efforts to Identify Historic Properties

A review of the National Register of Historic Places (NRHP) the list of State Archeological Landmarks (SAL), and the list of Recorded Texas Historic Landmarks (RTHL) indicated that no historically significant resources have been previously documented within the area of potential effects (APE), other than the NRHP-listed project bridge. It has been determined through consultation with the State Historic Preservation Officer (SHPO) that the APE for the proposed project is 150'. A site visit

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conducted by TxDOT personnel revealed that there are no structures 50 years old or older (built prior to 1959) except for the project bridge within the project APE. No Official State Historical Markers (OSHM) are located within the project APE.

Consultation with the Historic Bridge Foundation (HBF), McLennan County Historical Commission, and City of Waco Certified Local Government revealed concurrence with the project. (letter copy attached.)

### **Statement of Historic Significance**

In accordance with Section 110 of the National Historic Preservation Act and the Memorandum of Understanding between TxDOT and the Texas Historical Commission, the bridge was evaluated during the statewide inventory of metal truss bridges in 1995. The bridge exhibits sufficient structural integrity and engineering complexity when compared with other similar bridge types and was listed in the NRHP in 1998.

The bridge on Washington Ave derives its significance as an excellent example of pin-connected, Pennsylvania truss bridge in the State of Texas. The bridge has retained its integrity of design, materials, workmanship, location, setting, feeling and association. At the time of its construction, the Washington Avenue bridge was the longest single-span truss bridge in the southwest. Today, the bridge is the longest and oldest single-span vehicular truss bridge still in use in the United States. The bridge is an excellent example of a truss system popular at the turn of the century, but now rapidly disappearing from American roads. The bridge contains a high percentage of original material and is still used for its intended purpose.

### **Proposed Rehabilitation Activities**

The rehabilitation of the bridge includes:

- Removing the existing traffic railing and replacing with a new crash tested rail
- Removing the existing concrete deck and sidewalk and replacing with new concrete deck and sidewalk
- Repairing or replacing steel bridge members (less than 5% of original materials replaced)
- Cleaning and painting all material (Metal to be painted black, which a paint analysis [attached] revealed to be the original color of the bridge, concrete to be washed with a dry ice blast method)
- Reinstalling and painting (black) existing pedestrian bridge rail

Specifically:

-All cracked diagonal members would be repaired or replaced. A total of 24 I-bars which make up 12 diagonal members of the bridge would be replaced, a replacement of less than five percent of original material.

- Additional members would be retrofitted to add capacity at twelve diagonal locations to obtain HS 15 load rating for continued vehicular use.
- The top flanges of the sidewalk cantilevers would be replaced. There are a minimum of 15 locations that appear to be in critical condition and need replacement.
- Debris would be cleaned off the north abutment cap. The floor beam and connections damaged by the distortion of this member would be heat straightened.
- Cracked pin nuts would be replaced.
- Bottom of verticals where distortion has caused cracking to occur would be repaired.
- Structure would be blast cleaned (standard class A blast cleaning) and painted to slow the progression of pack rust and corrosion damage
- Concrete on the abutments would be cleaned using a dry ice blast cleaning method (See attached photos of current concrete condition)
- Section loss of bottom flanges and stiffeners on south approach spans would be restored – note that these spans are not character defining features of the bridge
- Deck construction joints would be cleaned and sealed to prevent drainage from reaching the steel
- Damaged and missing lacing on vertical and overhead members would be replaced with in kind material
- Missing anchor bolts at truss expansion bearings would be replaced with in kind materials
- Lighting on the bridge would be updated (See attached photos of proposed light installation)

### **Determination of Project Effects to Historic Properties**

TxDOT will replace or repair broken steel sections of the bridge with like materials to match the existing materials. The rehabilitation will be sympathetic to the historic elements of the bridge. The new materials will match the old in composition, design, color, texture, and materials. The cleaning of the steel and concrete elements of the bridge will be undertaken using the gentlest means possible. Please refer to the attached project plan sheets that show specifically which parts of the bridge will be repaired.

Because the rehabilitation and repair of elements of the existing bridge will be done with like materials in a sympathetic manner and according to the Secretary of the Interior's Standards for Rehabilitation, TxDOT has determined that this project constitutes a finding of **no adverse effect** to the historic Pennsylvania truss bridge over the Brazos River.

### **Conclusion**

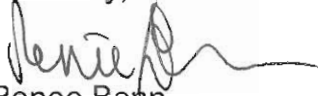
In accordance with 36 CFR 800 and the first amended Programmatic Agreement, I hereby request your signed concurrence with our determination of **no adverse effect** to the NRHP listed bridge.

Washington Ave @ Brazos truss

May 8, 2008


Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please call me at (512) 416-2611.

Sincerely,



Renee Benn  
Historic Preservation Specialist  
Historical Studies Branch  
Environmental Affairs Division

Attachments

<b>CONCUR – NO ADVERSE EFFECT</b>	
NAME: <u></u>	DATE: <u>5/29/08</u>
for F. Lawrence Oaks, State Historic Preservation Officer	

bcc: District: Waco                      Attn: Liv Reiners  
ENV/PM: Juan Valera Re: 850 File  
ENV/CRM: Warren Grannis