NM Highway 50 Bridge Replacement Project on the Glorieta Battlefield National Historic Landmark
Agenda

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Introduction

Project Design Development Team
• Federal Highway Administration (FHWA)
• New Mexico Department of Transportation (NMDOT)
• National Park Service (NPS)

Proposed Project
The NMDOT, in cooperation with FHWA, is proposing to replace Bridge No. 397 located at Milepost 1.15 on N.M. Highway 50 east of Glorieta Pass, in Santa Fe County, NM. Additional proposed improvements include new approach pavement and roadside barrier.
In the project area, N.M. Highway 50 traverses lands managed by the US Department of Interior, National Park Service, Pecos National Historical Park. The entire project is within the boundaries of the Glorieta Pass Battlefield National Historic Landmark.
Project Area

The project area extends about 400 feet east and west of Bridge No. 397 within the NMDOT easement. Bridge No. 397 is a 23-feet long single span cast-in-place concrete deck that was built in 1923 and was widened in the 1980s from 23 feet to 33.5 feet. Bridge No. 397 is not eligible for listing on the National Register of Historic Places as a historic property.
Purpose and Need

The project **PURPOSE** is to maintain safe and reliable infrastructure for the traveling public.

The project **NEED** is based on:

- Bridge age
- Poor bridge condition
- Low load ratings
Bridge Type Selection Process

Based on inspection and testing, the design team determined that rehabilitation could not adequately address the functional considerations; therefore, several bridge types were considered for replacement:

1. A precast concrete slab bridge
2. Prefabricated modular steel bridge
3. Concrete box culvert
4. Concrete pipe arch
Design Considerations

Right-of-way
- Road easement is 60 feet wide

Construction Feasibility
- Minimization of ground disturbance
- Minimization of construction vibrations
- Space available for construction access and laydown of materials
- Local contractor expertise
- Distance to fabricators
- Timing and length of road closures
- Accelerated bridge construction
- First responders

Functional requirements
- Meet current design standards
- Meet current drainage requirements
- Maintaining an open channel bottom
- Maintain same look and feel of existing bridge

Economics
- Cost for construction

Future maintenance
Design Considerations

Natural Resources
• Spans Glorieta Creek, a perennial waterway with riparian vegetation

Visual Landscape
• Topography and landform
• Riparian zone
• Valley and hillside vegetation patterns
• Remains of apple orchard
• Views that were key to battle strategy and events
• Standing structural remains of historical activity which retain integrity (e.g. Pigeon’s Ranch building, the stone well)
• Arrowhead Ruin and other archaeological resources
• Route of Santa Fe Trail
Design Considerations

Cultural Resources

- The Santa Fe Trail, a National Historic Trail, and a pre-1937 alignment of Route 66 are collocated with NM 50
- Within the Glorieta Pass Battlefield National Historic Landmark
- Pigeon’s Ranch was used as a field hospital by both Union and Confederate troops during the Battle of Glorieta Pass, fought in March 1862, and an important stop along the Santa Fe Trail.
The **SELECTED ALTERNATIVE** is a 40 foot, single span, precast concrete slab bridge with open metal railing. Guardrail will be replaced and extended to meet current design standards and pavement approaches will be reconstructed, paved, and striped. The existing concrete abutments will be preserved to minimize ground disturbance within the channel and the Historic Landmark.
Selected Alternative

CONTROL NUMBER 5101290, Bridge No. 397
Bridge Demolition and Construction will require **FULL ROADWAY CLOSURE** for 7 Weeks.

An 18-mile DETOUR ROUTE from Bridge 397 to the Glorieta/I-25 interchange would utilize NM 50, NM 63, and the Rowe/I-25 interchange.

**CONTROL NUMBER 5101290, Bridge No. 397**
Next Steps

- Emergency response coordination
- National Park Service consultation
- State Historic Preservation Officer consultation
- FHWA 4(f) analysis
- NEPA documentation, May 2020
- Final Design, July 2020
- Construction, Spring 2021
Questions and Comments

Please send written questions and comments to:

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Comments requested by May 8, 2020
ELECTRONIC SUBMITTALS PREFERRED

Project Resources will be available at NMDOT Web Page http://dot.state.nm.us/en/ProjectsD5.html
Thank you for your time.