Demystifying Bridge 4(f)
Session Agenda

• Overview of the Bridge 4(f) process
• Case studies
• Question and answer session
Overview

Section 4(f) of DOT Act of 1966

- **Regulated use of land from:**
  - Publicly owned and accessible:
    - Parks
    - Recreational areas
    - Wildlife and waterfowl refuges
  - Public or private historical properties

- **Cannot use a historic properties unless:**
  - No feasible or prudent alternative
  - All possible planning conducted to minimize harm
    OR
  - Appropriate for de minimis use
Overview – Feasible and Prudent

• Feasible:

Technically possible to design and build alternative
Overview – Feasible and Prudent

- **Prudent:**
  - Meets purpose and need
  - No unacceptable operational/safety problems
  - No unique problems or unusual factors
  - No unacceptable/severe adverse social, economic, or environmental impacts
  - No severe community disruption
  - No additional construction costs of extraordinary magnitude
  - No accumulation of factors that collectively, rather than individually, have adverse impacts that present unique problems or reach extraordinary magnitudes
Overview – Final Rule

• Response to a mandate in SAFETEA-LU

• Key points
  – New definition of “feasible and prudent alternative”
  – Clarification of constructive use
  – All possible planning = all reasonable planning
  – Balancing test
  – Exception 4(f) clause for temporary occupancy
Case Studies

De Minimis 4(f)

Programmatic Bridge 4(f)
Programmatic Bridge 4(f) - Process

Bridge Replacement Project

• Bridge was previously determined eligible or NRHP listed

Historic Bridge Team (HBT) Meets

• Goes over project basics

HBT Report & Condition Assessment Report are done
Programmatic Bridge 4(f) - Process

- Draft 4(f) is developed – Collaborative Effort
- Section 4(f) reports are done either by TxDOT personnel or an ENV-HIST consultant. BRG, district, ENV, & consultant work together to gather data for alternatives
- CHC is consulted
- 30 days, Used to determine if the bridge has local significance (can be concurrent with previous tasks)
- Section 106 is conducted with HBT
- 30 days
Programmatic Bridge 4(f) - Process

Concurrent Section 106 and 4(f) review by THC

- 45 days

Bridge Marketing & Mitigation
Programmatic Bridge 4(f) – Alt #1

• The No-Build alternative must be considered (Routine Maintenance)
• Rehabilitation for full vehicular service must show that activities are not adverse, no 4(f)!
Limestone County,
CR 786 at Frost Creek

View of roadway, bridge and approaches
Looking to the south

Damaged concrete approaches to be repaired
Programmatic Bridge 4(f) – Alt #2

• Reduced level of vehicular service:
  – Repair for vehicular use
    • usually requires design exception
    • must retain NRHP qualities and features
Travis County, Old San Antonio Road at Onion Creek low water crossing
Travis County, Old Highway 20 bridge, near Manor
• Bypass and use as a pedestrian facility
Programmatic Bridge 4(f) — Alt #4

- Relocate for vehicular or pedestrian use

CR 120 bridge, Wilson County
Programmatic Bridge 4(f) – Alt #5

- Leave in place as a monument
- This can mean no 4(f) if the bridge is simply closed without alterations.
- Either TxDOT or local govt. will have to maintain the bridge.

Caldwell County, CR 185, SE of Lockhart
Programmatic Bridge 4(f) – Alt #6

Shelby County, US 84 at Sabine River

• Removal/destruction with mitigation
Limestone County, US 84 at UPRR crossing, Mexia
• Determine preferred preservation alternative (make sure it meets purpose and need of project)

• If bridge cannot remain in full vehicular service (preservation Alt. #1), or can remain in service but activities are found to be adverse, must write 4(f) document
The Historic Bridge Foundation (HBF) was granted consulting party status for all projects that may adversely affect historic bridges. TxDOT historians must consult with HBF before consulting with SHPO about the effects of a project.
Programmatic Bridge 4(f) – Consultation Timelines

Using the draft 4(f) document

- historians will consult with Historic Bridge Foundation (HBF) as well as any other identified consulting parties (30 days)
- historians will consult with the SHPO (20 days)
Programmatic Bridge 4(f) –
Items Needed for Consultation

• Good draft 4(f) document (well written purpose and need statement and alternatives discussion)
• Latest BRG inspection report and condition report
• Recent photos of condition of bridge
• Map
• At least 60% complete schematics of proposed project
• Marketing completed (whether buyer is found or not)
Items needed for consultation, con’t

• If the bridge will be relocated:
  – Three party agreement (signed) if bridge will be turned over to county or city ownership
  – Relocation plan drafted by the district that shows the proposed use and location of the bridge
Programmatic Bridge 4(f) –
Project Wrap-up

• SHPO concurs, 
send 4(f) as an 
attachment to the 
NEPA document 
to FHWA

• DONE!
Bridges

- FM 1689 Bridge at Tributary to Jimmy’s Creek – Comanche County
- CR 140 at Jim Ned Creek – Coleman County
FM 1689 Bridge
FM 1689-Project Specific Issues

- Masonry construction built by WPA in 1940
- Sufficiency Rating of 19.3
- Farm to Market Roadway with need for widening for safety
“Rocks” on the Bridge

• Communication between TXDOT personnel
• Communication between TXDOT and THC

COMMUNICATION!!!
COMMUNICATION!!!
COMMUNICATION!!!
COMMUNICATION!!!
Solution – modified Alt #2

• Given time and multiple translations the solution comes to fruition.
  – Incorporation of the significant masonry elements.
  – Development of near in-kind railing
  – Text marker explaining the history of the bridge and new design
Wahlah!!
CR 140 at Jim Ned Creek
CR 140-Project Specific Issues

- 80-ft Pratt Truss built in 1915 and a 100-ft Warren truss built in 1907 both moved to present location in 1923 (also 4 steel stringer approach spans)
- Sufficiency Rating of 24.0
- Agricultural area with large equipment currently detouring 15 miles or using the adjacent low water crossing
Issues

• THC wanted to make it a one-way pair
• TXDOT addressed why this was not prudent.
  – Load posting would still be required on historic bridge even after rehabilitation
  – Oversize vehicles would use the new wider structure to cross in the wrong direction
Solution - Alt. #5

• Leaving as monument
• Minor repairs
• Eliminating vehicular and pedestrian access
• Providing marker
Communication

• The different disciplines and agencies (engineering, historians, TXDOT, and THC) don’t speak the same language.
• The 4(f) audience is the public:
  – No habla engineering…No habla historical architecture!
• District environmental personnel and TXDOT historians are left to be the interpreters.
Time

- Local County Historic Commissioner
- Bridge Condition Report
- Historic Bridge Team Report
- Draft 4(f)
- Informal/Formal Coordination with THC/HBF
- FHWA
Patience

- Language Barriers
- Timeframes
- Frustration
Keys to Success

Communication
Starting Early
Patience