Louisiana Historic Bridges: Rehabilitation Prioritization and Programmatic Agreement

AASHTO Subcommittee on Bridges and Structures
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Purpose and benefits

- Streamline compliance with federal preservation regulations
- Identify historic bridges
- Identify best candidates for future preservation
- Determine maintenance and rehabilitation needs and costs
Identify historic and non-historic bridges

- 4,579 bridges in total
- 97% determined not eligible
- 3% determined eligible or listed in National Register
- 150 bridges determined eligible or listed in National Register
- 4,429 bridges determined not eligible
Historic bridge materials and types

- Concrete Arch: 11
- Concrete Slab, Beam & Girder: 17
- Concrete Rigid Frame: 9
- Culvert Pre-1946: 10
- Movable: 6
- Post-1945 Common Types: 9
- Steel Beam & Girder: 3
- Truss: 2
- Bascule: 6
- Lift - Span & Span Tower: 19
- Lift Tower: 4
- Pontoon Swing: 6
- Swing - Cable Stayed: 5
- Swing - Pony Truss: 5
- Swing - Through Truss: 1
- Swing - Plate Girder: 15

TOTAL BRIDGES: 150
28 Excluded
Categorize historic bridges

- Preservation Priority: Commitment to maintain and rehabilitate

- Preservation Candidate: Maintain and rehabilitate when prudent and feasible

- Non-Priority: Can remove and replace when needed
Preservation prioritization methodology overview
Condition score

- Comparative tool
- Indicator of preservation potential
- Isolates factors that typically determine whether preservation is prudent and feasible
- Sort condition scores (high to low)
Check if Bridge Can Meet These Considerations:

- **Rehabilitation**: Good potential for rehabilitation that follows Secretary of the Interior's Standards or rehabilitation not anticipated
- **Geometrics**: Meets AASHTO low volume standards (where ADT ≤ 400) or Louisiana Minimum Design Guidelines (where ADT > 400) or satisfactory geometrics
- **Load**: Within 90% (or better) of acceptable live load capacity
- **Detour**: Acceptable detour for load posted bridge (< 10 miles)
- **Navigation Control and Restrictions**: Navigation control required and clearances adequate (if applicable) and no restrictive factors
Additional Consideration 1 - Rehabilitation
Additional Consideration 2 - Geometrics
Best of type

- Pontoon swing
- Swing – cable stayed
- Swing – plate girder
- Swing – pony truss
- Swing – through truss
- Pony truss
Prioritization results

- Preservation Priority: 27% (33 Bridges)
- Preservation Candidate: 48% (59 Bridges)
- Non-Priority: 25% (30 Bridges)

Total Bridges: 122
Preservation Priority

Vertical Lift – 1964          Recall No. 009460          Vermillion Parish
Preservation Priority

- Consideration 1 - Rehabilitation
- Consideration 2 - Geometrics
- Consideration 3 - Load
- Consideration 4 - Detour
- Consideration 5 - Navigation Control and Restriction
Preservation Candidate

Through truss – 1952
Recall No. 012548
Bossier Parish
Preservation Candidate

✓ Consideration 1 - Rehabilitation

Consideration 2 - Geometrics

✓ Consideration 3 - Load

✓ Consideration 4 - Detour

✓ Consideration 5 - Navigation Control and Restriction
Non-Priority

Swing Plate Girder – 1935
Recall No. 002830
St. Charles Parish
Non-Priority

- Consideration 1 - Rehabilitation
- Consideration 2 - Geometrics
- Consideration 3 - Load
  - Consideration 4 - Detour
- Consideration 5 - Navigation Control and Restriction
Results

- Streamlines efforts for LADOTD and local owners
- Commitment to Preservation Priority Bridges
- Provides model for other states to consider
Recent Accomplishments in Historic Bridge Preservation
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Project website:

http://www.dotd.la.gov/administration/public_info/projects/historicbridges/