



Bridge #A0916(Routine)

US167 Sharp County over PINEY CREEK RELIEF

Location: 11.37 MI W INDEPENDENCE C

Team Lead: Nathan Edwards **Inspection Date:** June 18, 2021



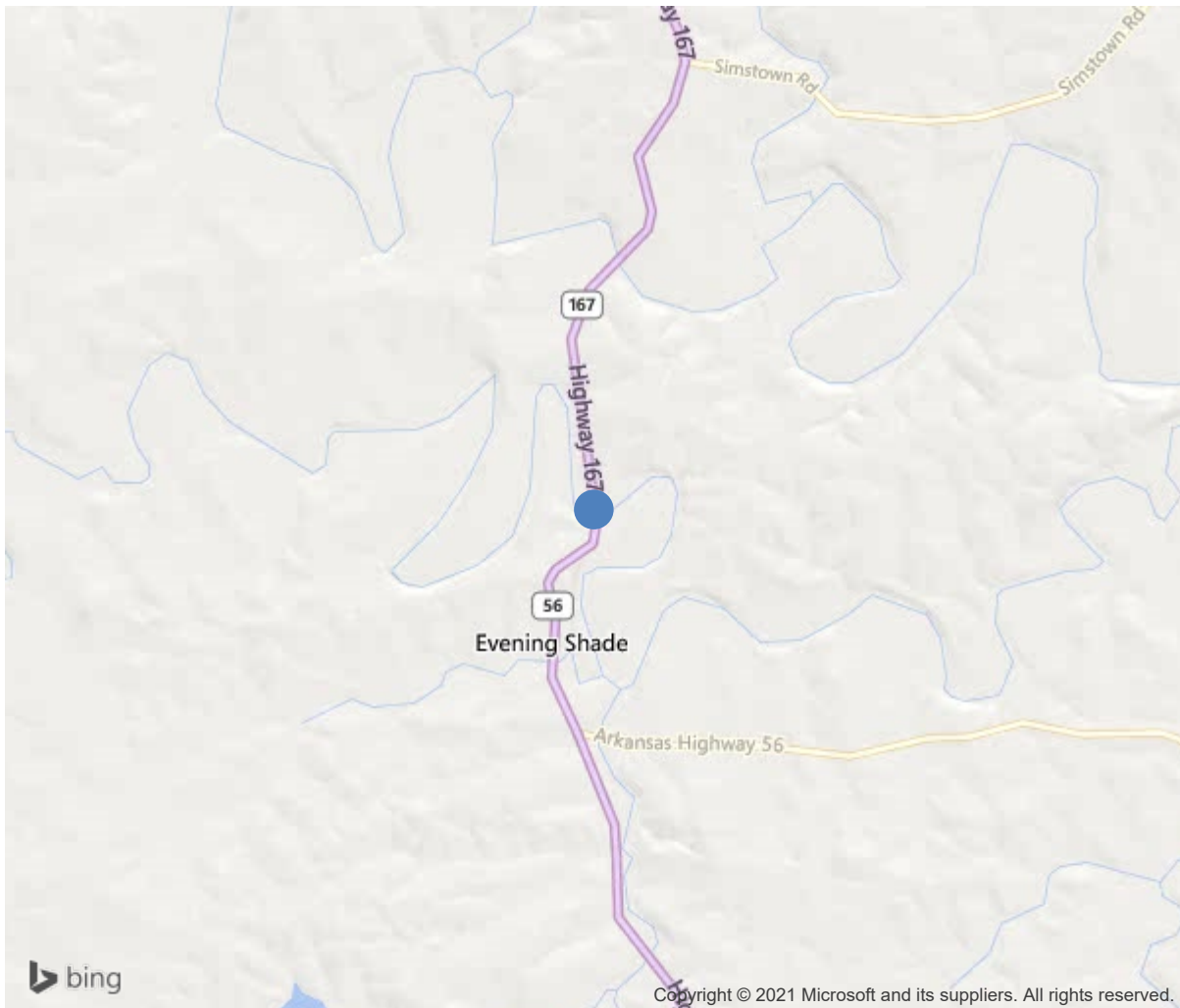
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36.08132, -91.61087



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| IDENTIFICATION | |
|---|--|
| (1) State Names | Arkansas |
| (8) Structure Number | A0916 |
| (5) Inventory Route | 167 |
| (2) Highway Agency District | 05 |
| (3) County Code | 135-Sharp County, Arkansas |
| (4) Place Code | 0 |
| (6) Features Intersected | PINEY CREEK RELIEF |
| (7) Facility Carried | US167 Sharp County |
| (9) Location | 11.37 MI W INDEPENDENCE C |
| (11) Mile Point | 11.367 mi |
| (12) Base Highway Network | Yes |
| (13) LRS Inventory Rte & Subrte | 0000167190 |
| (16) Latitude | 36.08132 |
| (17) Longitude | -91.61087 |
| (98) Border Bridge State Code | |
| (99) Border Bridge Structure No. | |
| STRUCTURE TYPE AND MATERIAL | |
| (43) Main Structure Type | 14 |
| Material | 1-Concrete |
| Type | 4-Tee beam |
| (44) Approach Structure Type | 00 |
| Material | 0-Other |
| Type | 0-Other |
| (45) No. of Spans in Main Unit | 3 |
| (46) No. of Approach Spans | 0 |
| (107) Deck Structure Type | 1-Concrete Cast-in-Place |
| (108) Wearing Surface/Protective System | |
| Type of Wearing Surface | 1-Monolithic Concrete (concurrently placed |
| Type of Membrane | 0-None |
| Type of Deck Protection | 0-None |
| AGE AND SERVICE | |
| (27) Year Built | 1928 |
| (106) Year Reconstructed | 1955 |
| (42) Type of Service | 15 |
| On | 1-Highway |
| Under | 5-Waterway |
| (28) Lane | |
| On | 2 |
| Under | 0 |
| (29) Average Daily Traffic | 3400 |
| (30) Year of ADT | 2018 |
| (109) Truck ADT | 13 % |
| (19) Bypass, Detour Length | 15 mi |
| GEOMETRIC DATA | |
| (48) Length of Maximum Span | 35 ft |
| (49) Structure Length | 105 ft |
| (50) Curb or Sidewalk Width | |
| Left | 1.5 ft |
| Right | 1.5 ft |
| (51) Bridge Roadway Width Curb to Curb | 25.9 ft |
| (52) Deck Width Out to Out | 29.5 ft |
| (32) Approach Roadway Width (W/Shoulders) | 32.2 ft |
| (33) Bridge Median | 0-No median |
| (34) Skew | 0 Deg |
| (35) Structure Flared | No flare |
| (10) Inventory Route Min Vert Clear | 99.99 ft |
| (47) Inventory Route Total Horiz Clear | 28.9 ft |
| (53) Min Vert Clear Over Bridge Rdwy | 99.99 ft |
| (54) Min Vert Underclear | 0 ft |
| Ref: | |
| (55) Min Lat Underclear RT | 99.9 ft |
| Ref: | |
| (56) Min Lat Underclear LT | 0 ft |
| NAVIGATION DATA | |
| (38) Navigation Control | 0-No navigation control on water |
| (111) Pier Protection | 1-Navigation protection not requ |
| (39) Navigation Vertical Clearance | 0 ft |
| (116) Vert-Lift Bridge Nav Min Vert Clear | 0 ft |
| (40) Navigation Horizontal Clearance | 0 ft |

| CLASSIFICATION | |
|--|--|
| (112) NBIS Bridge Length | Y |
| (104) Highway System | 1 |
| (26) Functional Class | 2-Rural Principal Arterial - Oth |
| (100) Defense Highway | 0-The inventory route is not a S |
| (101) Parallel Structure | N-No parallel structure exists. |
| (102) Direction of Traffic | 2 - way traffic |
| (103) Temporary Structure | |
| (105) Federal Lands Highways | 0-N/A |
| (110) Designated National Network | 1-The inventory route is part of the |
| (20) Toll | 3-On free road. The structure is toll- |
| (21) Maintain | 1-State Highway Agency |
| (22) Owner | 1-State Highway Agency |
| (37) Historical Significance | 5-Bridge is not eligible for the NRHP |
| CONDITION | |
| (58) Deck | 6 |
| (59) Superstructure | 6 |
| (60) Substructure | 5 |
| (61) Channel & Channel Protection | 7 |
| (62) Culverts | N |
| LOAD RATING AND POSTING | |
| (31) Design Load | 4-M 18 / H 20 |
| (63) Operating Rating Method | 1 |
| (64) Operating Rating | |
| Type | 1-Load Factor(LF) |
| Rating | 60 |
| (65) Inventory Rating Method | 1-Load Factor(LF) |
| (66) Inventory Rating | |
| Type | 3 |
| Rating | 36 |
| (70) Bridge Posting | 5-Equal to or above legal loads |
| (41) Structure Open/Posted/Closed | A-Open, no restriction |
| APPRAISAL | |
| (67) Structural Evaluation | 5 |
| (68) Deck Geometry | 3 |
| (69) Clearances, Vertical/Horizontal | N |
| (71) Waterway Adequacy | 8 |
| (72) Approach Roadway Alignment | 7 |
| (36) Traffic Safety Features | 0000 |
| A) Bridge Railings | 0-Inspected feature does not meet cur |
| B) Transitions | 0-Inspected feature does not meet cur |
| C) Approach Guardrail | 0-Inspected feature does not meet cur |
| D) Approach Guardrail Ends | 0-Inspected feature does not meet cur |
| (113) Scour Critical Bridges | 8-Bridge foundations determined to be |
| PROPOSED IMPROVEMENTS | |
| (75) Type of Work | Replacement of bridge or other |
| (76) Length of Structure Improvement | 132 ft |
| (94) Bridge Improvement Cost | \$ 0 |
| (95) Roadway Improvement Cost | \$ 235 |
| (96) Total Project Cost | \$ 570 |
| (97) Year of Improvement Cost Estimate | 2003 |
| (114) Future ADT | 3711 |
| (115) Year of Future ADT | 2028 |
| INSPECTIONS | |
| (90) Inspection Date | |
| (91) Frequency | 24 Months |
| (92) Critical Feature Inspection | Done Freq. (Mon) Date |
| A: Fracture Critical Detail | No 24 |
| B: Underwater Inspection | No 0 |
| C: Other Special Inspection | No 0 |



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| ELEM | DESCRIPTION | UNITS | TOTAL | CS1 | CS2 | CS3 | CS4 |
|-------|--|-------|-------|------|-----|-----|-----|
| 16 | Reinforced Concrete Top Flange | SF | 3098 | 2433 | 85 | 580 | 0 |
| 1080 | Delamination/Spall/Patched Area | SF | 285 | 0 | 0 | 285 | 0 |
| 1090 | Exposed Rebar | SF | 35 | 0 | 0 | 35 | 0 |
| 1120 | Efflorescence/Rust Staining | SF | 345 | 0 | 85 | 260 | 0 |
| 510 | Wearing Surfaces | SF | 2730 | 2730 | 0 | 0 | 0 |
| (16) | Asphalt has transverse cracks at joints. Left & Right curbs have heavy deterioration at all spans with 30' rebar exposed. Span 1 soffit has transverse cracks, some with efflorescence & light rust stains. Span 1 - 3 have cracks with heavy efflorescence and some with rust stains to soffit between Girders 3 & 4 Span 1 - 3 have transverse cracks with efflorescence & some light rust stains between Girders 1 - 3. | | | | | | |
| 110 | Reinforced Concrete Open Girder/Beam | LF | 420 | 375 | 12 | 33 | 0 |
| 1090 | Exposed Rebar | LF | 3 | 0 | 0 | 3 | 0 |
| 1120 | Efflorescence/Rust Staining | LF | 42 | 0 | 12 | 30 | 0 |
| (110) | Span 1 - Girder 4 has heavy efflorescent map cracking entire length. Areas of delamination to outside of girder. Spall with rebar exposed to Girder 4 over Bent 1. Span 2 - Cracks & areas of delamination at concrete haunches under girders @ end of Span 2. Girder 4 has moderate efflorescent cracking. Hairline vertical flexure cracks to all girders. | | | | | | |
| 205 | Reinforced Concrete Column | EA | 6 | 0 | 2 | 4 | 0 |
| 1090 | Exposed Rebar | EA | 3 | 0 | 0 | 3 | 0 |
| 1130 | Cracking (RC and Other) | EA | 3 | 0 | 2 | 1 | 0 |
| (205) | Bent 1 - Column 1 has spall with 2' rebar exposed with section loss present. Column 3 has vertical crack, areas of delamination & a spall with 3' rebar exposed. Bent 2 - Column 1 has full height vertical crack & spalls with 3' rebar exposed. Large cracks to top of Column 3 @ Bent 2. Light scaling to bottom of Column 1 & 2 @ Bents 1 & 2. Deep scaling to bottom of Column 3 @ Bents 1 & 2. | | | | | | |
| 210 | Reinforced Concrete Pier Wall | LF | 36 | 27 | 0 | 9 | 0 |
| 1130 | Cracking (RC and Other) | LF | 9 | 0 | 0 | 9 | 0 |
| 215 | Reinforced Concrete Abutment | LF | 83 | 49 | 16 | 18 | 0 |
| 1080 | Delamination/Spall/Patched Area | LF | 11 | 0 | 0 | 11 | 0 |
| 1090 | Exposed Rebar | LF | 3 | 0 | 0 | 3 | 0 |
| 1120 | Efflorescence/Rust Staining | LF | 8 | 0 | 4 | 4 | 0 |

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|---|---|-------|-------|-----|-----|-----|-----|
| 1130 (215) | Cracking (RC and Other) | LF | 12 | 0 | 12 | 0 | 0 |
| Full height vertical cracks with rust stains and random efflorescent cracking at Abutments 1 and 2. Spalls with 3" of rebar exposed to Abutments 1 and 2. Abutment 2 has delaminated areas on Right end. Approach roadway has visible settlement at Abutment 2. | | | | | | | |
| 234 | Reinforced Concrete Pier Cap | LF | 49 | 11 | 0 | 38 | 0 |
| 1080 | Delamination/Spall/Patched Area | LF | 14 | 0 | 0 | 14 | 0 |
| 1090 | Exposed Rebar | LF | 8 | 0 | 0 | 8 | 0 |
| 1120 | Efflorescence/Rust Staining | LF | 4 | 0 | 0 | 4 | 0 |
| 1130 (234) | Cracking (RC and Other) | LF | 12 | 0 | 0 | 12 | 0 |
| Spalls w/ 1' of rebar exposed on Right end of cap at Bent 1 and 2' on ahead side. Horizontal cracking to cap between Girders 1 through 3 @ Bent 1. Several patched & spalled areas to caps. Spalling with rebar exposed to Left & Right ends of cap at Bent 2. Efflorescent cracking to backside of cap @ Bent 2. | | | | | | | |
| 330 | Metal Bridge Railing | LF | 210 | 0 | 210 | 0 | 0 |
| 1000 | Corrosion | LF | 190 | 0 | 190 | 0 | 0 |
| 7000 | Damage | LF | 20 | 0 | 20 | 0 | 0 |
| 515 | Steel Protective Coating | SF | 630 | 0 | 0 | 315 | 315 |
| 3440 (330) | Effectiveness (Steel Protective Coatings) | SF | 630 | 0 | 0 | 315 | 315 |
| Right rail is bent outward @ Span 2. Minor corrosion to Left & Right rails throughout. | | | | | | | |



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Maintenance Needs

Date Reported: 06/21/2011

Priority: D- Routine

Type of Work: Repair

Status: Monitor

Component:

Deficiency Description

Heavy efflor. map cracking to girder #4 at span #1.

Remarks



Efflor map cracking span #1 girder #4



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Priority: D- Routine

Type of Work: Repair

Status: Monitor

Component:

Deficiency Description

Bent #1

Spall w/ 6" of rebar exposed to column #1.

Spalls w/ 1' of rebar exposed to Rt. end of cap and 1.5' on ahead side.

Remarks



Spalling with deterioration to Rt. end of cap @ Bent
#1

Date Reported: 06/21/2011

Priority: D- Routine

Type of Work: Repair

Status: Monitor

Component:

Deficiency Description

Bent #2

Full height vertical crack & spalls w/ 2' of rebar exposed at column #1.

Efflor. map cracking & chemical deterioration to Lt. end of cap.

Remarks



Bent #2 column #1 and Lt. end of cap has spalls heavy deterioration with 2' rebar exposed.



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Date Reported: 06/21/2011

Priority: D- Routine

Type of Work: Repair

Status: Monitor

Component:

Deficiency Description

Cracks, delaminated areas, and spalls w/ rebar exposed to Lt. and Rt. curbs at all spans.

Remarks



Heavy spalling & deterioration to left & right curbs.



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Component:

Deficiency Description

Bridge rail is bowed on Rt. side at span #2.

Remarks



Guardrail bowed @ Span #2 Rt. side



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Priority: D- Routine

Type of Work: Repair

Status: Monitor

Component:

Deficiency Description

Abutments #1 and #2 have spalls w/10" of rebar exposed.

Remarks



Spall with rebar exposed @ Abut. #1 & #2



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Inspection Comments

Log Mile running North..Job 5417