**Bridge #05336**(Routine)
**SH 319 / 2 Log 0.6 over US 67 SEC 11 LOG 9.22**
**Location: .60 MI W JCT SH 367**
**Team Lead:** Chris Doggett **Inspection Date:** May 05, 2020

Latitude:35.03422, Longitude:-91.95918

Route:319  Section:02  Log:0.6

Arnold Road ID:43x319x2xA, Arnold Log mile:0.582

District 06, Lonoke County

Owner: 1-State Highway Agency

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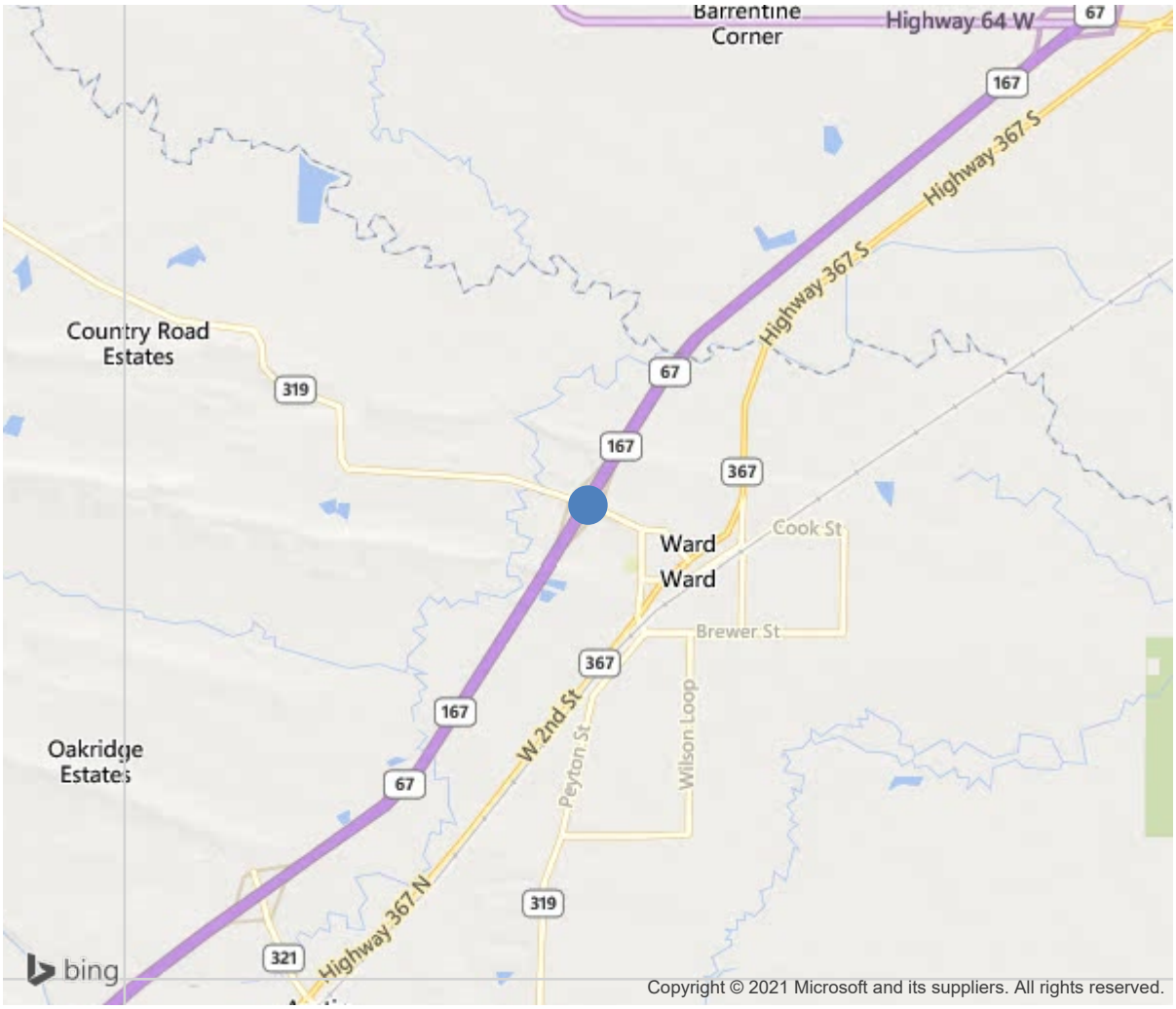
.60 MI W JCT SH 367




35.03422, -91.95918

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**Location: .60 MI W JCT SH 367**

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| IDENTIFICATION | |
|---|---|
| (1) State Names | Arkansas |
| (8) Structure Number | 05336 |
| (5) Inventory Route | 319 |
| (2) Highway Agency District | 06 |
| (3) County Code | 85-Lonoke County, Arkansas |
| (4) Place Code | 0 |
| (6) Features Intersected | US 67 SEC 11 LOG 9.22 |
| (7) Facility Carried | SH 319 / 2 Log 0.6 |
| (9) Location | .60 MI W JCT SH 367 |
| (11) Mile Point | 0.6 mi |
| (12) Base Highway Network | No |
| (13) LRS Inventory Rte & Subrte | 0000000000 |
| (16) Latitude | 35.03422 |
| (17) Longitude | -91.95918 |
| (98) Border Bridge State Code | |
| (99) Border Bridge Structure No. | |

| STRUCTURE TYPE AND MATERIAL | |
|---|---|
| (43) Main Structure Type | 42 |
| Material | 4-Steel continuous |
| Type | 2-Stringer/Multi-beam or girder |
| (44) Approach Structure Type | 00 |
| Material | 0-Other |
| Type | 0-Other |
| (45) No. of Spans in Main Unit | 2 |
| (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 | 1971 |
| (106) Year Reconstructed | 0 |
| (42) Type of Service | 61 |
| On | 6-Overpass structure at an interchange or secon |
| Under | 1-Highway, with or without pedestrian |
| (28) Lane | |
| On | 2 |
| Under | 4 |
| (29) Average Daily Traffic | 5200 |
| (30) Year of ADT | 2018 |
| (109) Truck ADT | 4 % |
| (19) Bypass, Detour Length | 1 mi |

| GEOMETRIC DATA | |
|---|---|
| (48) Length of Maximum Span | 115 ft |
| (49) Structure Length | 220 ft |
| (50) Curb or Sidewalk Width | |
| Left | 0 ft |
| Right | 0 ft |
| (51) Bridge Roadway Width Curb to Curb | 34.1 ft |
| (52) Deck Width Out to Out | 37.3 ft |
| (32) Approach Roadway Width (W/Shoulders) | 35.1 ft |
| (33) Bridge Median | 0-No median |
| (34) Skew | 15 Deg |
| (35) Structure Flared | No flare |
| (10) Inventory Route Min Vert Clear | 99.99 ft |
| (47) Inventory Route Total Horiz Clear | 35.1 ft |
| (53) Min Vert Clear Over Bridge Rdwy | 99.99 ft |
| (54) Min Vert Underclear | 16.58 ft |
| Ref: | |
| (55) Min Lat Underclear RT | 28.2 ft |
| Ref: | |
| (56) Min Lat Underclear LT | 7.7 ft |

| NAVIGATION DATA | |
|---|---|
| (38) Navigation Control | N-Not applicable, no waterway. |
| (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 | 0 |
| (26) Functional Class | 7-Rural Major Collector |
| (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 | 0-The inventory route is not part of |
| (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 | 6 |
| (61) Channel & Channel Protection | N |
| (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 | 50 |
| (65) Inventory Rating Method | 1-Load Factor(LF) |
| (66) Inventory Rating | |
| Type | 2 |
| Rating | 30 |
| (70) Bridge Posting | 5-Equal to or above legal loads |
| (41) Structure Open/Posted/Closed | A-Open, no restriction |

| APPRAISAL | |
|---|---|
| (67) Structural Evaluation | 6 |
| (68) Deck Geometry | 4 |
| (69) Clearances, Vertical/Horizontal | 7 |
| (71) Waterway Adequacy | N |
| (72) Approach Roadway Alignment | 7 |
| (36A) Bridge Railings | 0-Inspected feature does not meet cur |
| (36B) Transitions | 0-Inspected feature does not meet cur |
| (36C) Approach Guardrail | 0-Inspected feature does not meet cur |
| (36D) Approach Guardrail Ends | 0-Inspected feature does not meet cur |
| (113) Scour Critical Bridges | N-Bridge not over waterway. |

| PROPOSED IMPROVEMENTS | |
|---|---|
| (75) Type of Work | |
| (76) Length of Structure Improvement | 0 ft |
| (94) Bridge Improvement Cost | $ 0 |
| (95) Roadway Improvement Cost | $ 0 |
| (96) Total Project Cost | $ 0 |
| (97) Year of Improvement Cost Estimate | |
| (114) Future ADT | 5700 |
| (115) Year of Future ADT | 2038 |

| INSPECTIONS | | | |
|---|---|---|---|
| (90) Inspection Date | | | 05/2020 |
| (91) Frequency | | | 24 Months |
| (92) Critical Feature Inspection | Done | Freq. (Mon) | Date |
| A: Fracture Critical Detail | No | | |
| B: Underwater Inspection | No | | |
| C: Other Special Inspection | No | | |

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| ELEM | DESCRIPTION | UNITS | TOTAL | CS1 | CS2 | CS3 | CS4 |
|---|---|---|---|---|---|---|---|
| 12 | Reinforced Concrete Deck | SF | 8131 | 7119 | 1005 | 7 | 0 |
| 1080 | Delamination/Spall/Patched Area | SF | 33 | 0 | 31 | 2 | 0 |
| 1090 | Exposed Rebar | SF | 5 | 0 | 0 | 5 | 0 |
| 1120 | Efflorescence/Rust Staining | SF | 134 | 0 | 134 | 0 | 0 |
| 1130 | Cracking (RC and Other) | SF | 840 | 0 | 840 | 0 | 0 |
| (12) | | | | | | | |
| Transverse cracks on 6 to 8 foot centers. Span 2 has scattered delams and small spalls and one area (1x1) with exposed rebar. Scattered cracks with light efflorescence at bent 2 in soffit overhangs. | | | | | | | |
| 107 | Steel Open Girder/Beam | LF | 1088 | 908 | 160 | 20 | 0 |
| 1000 | Corrosion | LF | 180 | 0 | 160 | 20 | 0 |
| 515 | Steel Protective Coating | SF | 12506 | 0 | 2911 | 9480 | 115 |
| 3420 | Peeling/Bubbling/Cracking | SF | 100 | 0 | 0 | 100 | 0 |
| 3440 | Effectiveness (Steel Protective Coatings) | SF | 12406 | 0 | 2911 | 9380 | 115 |
| (107) | | | | | | | |
| The girder ends and outside of girders 1&5 were repainted by HBM 2/4/99<br>Girder ends at bents 1 & 3 have active rust moderate pitting due to leaking joints seals. Girders 2 thru 4 have areas of freckling rust. | | | | | | | |
| 205 | Reinforced Concrete Column | EA | 3 | 2 | 1 | 0 | 0 |
| 1090 | Exposed Rebar | EA | 1 | 0 | 1 | 0 | 0 |
| (205) | | | | | | | |
| Bent 2 center column right side has small spall with exposed rebar. | | | | | | | |
| 215 | Reinforced Concrete Abutment | LF | 189 | 142 | 33 | 14 | 0 |
| 1080 | Delamination/Spall/Patched Area | LF | 14 | 0 | 0 | 14 | 0 |
| 1090 | Exposed Rebar | LF | 8 | 0 | 8 | 0 | 0 |
| 1130 | Cracking (RC and Other) | LF | 25 | 0 | 25 | 0 | 0 |
| (215) | | | | | | | |
| Bent 1 has vertical cracks in the face of the breast wall.<br>Bent 3 has cracking, delams and exposed rebar on the face of the breast wall. | | | | | | | |
| 234 | Reinforced Concrete Pier Cap | LF | 34 | 32 | 2 | 0 | 0 |
| 1080 | Delamination/Spall/Patched Area | LF | 1 | 0 | 1 | 0 | 0 |
| 1090 | Exposed Rebar | LF | 1 | 0 | 1 | 0 | 0 |
| (234) | | | | | | | |
| Bent 2, back face, right end. 1 exposed rebar. | | | | | | | |

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| ELEM | DESCRIPTION | UNITS | TOTAL | CS1 | CS2 | CS3 | CS4 |
|---|---|---|---|---|---|---|---|
| Bent 2 has a small delam on the left end. | | | | | | | |
| 302 | Compression Joint Seal | LF | 74 | 0 | 0 | 37 | 37 |
| 2310 | Leakage | LF | 74 | 0 | 0 | 37 | 37 |
| (302) | | | | | | | |
| The joint seal at bent 1 has fallen out and joint seal at bent three leaks. See photo. | | | | | | | |
| 311 | Movable Bearing | EA | 10 | 0 | 5 | 5 | 0 |
| 1000 | Corrosion | EA | 5 | 0 | 0 | 5 | 0 |
| 2220 | Alignment | EA | 5 | 0 | 5 | 0 | 0 |
| (311) | | | | | | | |
| All of the bearings have active corrosion. The bearings at bent 1 are misaligned. | | | | | | | |
| 313 | Fixed Bearing | EA | 5 | 5 | 0 | 0 | 0 |
| 321 | Reinforced Concrete Approach Slab | SF | 1752 | 1683 | 24 | 45 | 0 |
| 1080 | Delamination/Spall/Patched Area | SF | 45 | 0 | 0 | 45 | 0 |
| 1130 | Cracking (RC and Other) | SF | 24 | 0 | 24 | 0 | 0 |
| (321) | | | | | | | |
| Both approach slabs have scattered cracking. Both approach slabs have spalls filled with asphalt. See photo. | | | | | | | |
| 330 | Metal Bridge Railing | LF | 440 | 440 | 0 | 0 | 0 |
| 331 | Reinforced Concrete Bridge Railing | LF | 440 | 375 | 65 | 0 | 0 |
| 1130 | Cracking (RC and Other) | LF | 65 | 0 | 65 | 0 | 0 |
| (331) | | | | | | | |
| Concrete bridge railing has scattered cracks. | | | | | | | |

Deck view

Soffit view

Inventory looking north

Bent 3: abutment with numerous spalls with exposed rebar and horizontal cracks with efflorescence

Bent 3, girder 1:  bearing with laminating and pack rust at the sole plate and next to bottom flange.

Span 2 has open spalls and spalls that have been patched with asphalt

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## Maintenance Needs

| | |
|---|---|
| **Date Reported:** | 06/29/2012 |
| **Priority:** | C - Important |
| **Type of Work:** | Repair |
| **Status:** | Monitor |
| **Component:** | 302 - Compression Joint Seal |

### Deficiency Description

Bent 1, joint seal has fallen out and laying on bearings and causing debris build-up around bearings. Photo attached

### Remarks

Bent 1 joint seal is missing.

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Bent 1: entire joint seal is missing

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**Date Reported:** 06/29/2012
**Priority:** C - Important
**Type of Work:** Repair
**Status:** Monitor
**Component:** 12 - Reinforced Concrete Deck

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**Deficiency Description**

Deck has small spalls and large unsealed transverse cracks.
Span 2: left lane with open spall with exposed rebar and open spall with asphalt patch.

**Remarks**

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Span 2 spall with exposed rebar and spall filled with asphalt.

Span 1: numerous unsealed transverse cracks.

Span 2: left lane with open spall with exposed rebar and open spall with asphalt patch.

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**Date Reported:** 05/22/2014
**Priority:** D- Routine
**Type of Work:** Repair
**Status:** Monitor
**Component:** 311 - Movable Bearing

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**Deficiency Description**

Bearings at abutment 1 have rust and are rotated. Photo attached
Bearings at bent 3 abutment have heavy rust. Photo attached.

**Remarks**

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Bent 3 bearing 1 laminating rust common all bearings at bent 3.

Bent 1 bearing 4 is fully rotated back.

Bent 3, girder 1:  bearing with laminating and pack rust at the sole plate and next to bottom flange.

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**Date Reported:** 05/22/2014
**Priority:** C - Important
**Type of Work:** N/A
**Status:** Monitor
**Component:**

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**Deficiency Description**

Both approach slabs have spalls and spalls filled with asphalt.

**Remarks**

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Northbound approach slab has spalls filled with asphalt.

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**Inspection Comments**

Job #1429, Drawing #16574 for Layout.

Logged Northbound