



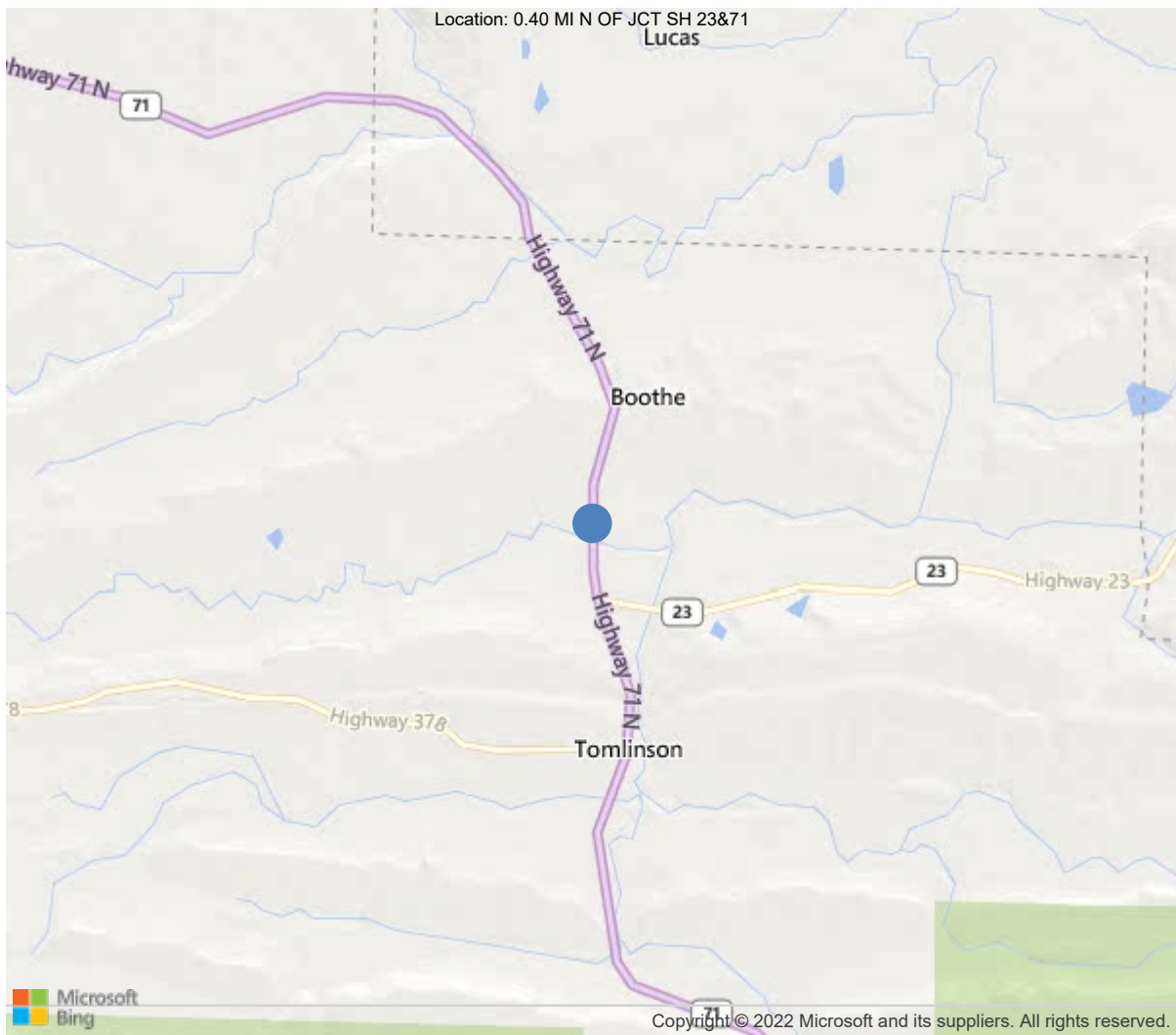
Latitude:35.03471, Longitude:-94.12240

Route:71 Section:10 Log:33.05

Arnold Road ID:63x71x10xA, Arnold Log mile:33.037

District 04, 127 - Scott County

Owner: 1 - State Highway Agency



35.03471, -94.12240





Asset #00316(Routine)

US Highway 71 over Kings Relief - Scott Co.

Location: 0.40 MI N OF JCT SH 23&71

Team Lead: Jeff Jones, Inspection Date: 05/19/2021

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	00316
(5) Inventory Route	1
(2) Highway Agency District	04 - District 04
(3) County Code	127 - Scott County
(4) Place Code	0
(6) Features Intersected	Kings Relief - Scott Co.
(7) Facility Carried	US Highway 71
(9) Location	0.40 MI N OF JCT SH 23&71
(11) Mile Point	33.05 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.03471
(17) Longitude	-94.1224
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	11
Material	1 - Concrete
Type	1 - Slab
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	1
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	2 - Integral Concrete (separate non-mo
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1928
(106) Year Reconstructed	1981
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	5100
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	15 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	35 ft
(49) Structure Length	35 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	44 ft
(52) Deck Width Out to Out	46.8 ft
(32) Approach Roadway Width (W/Shoulders)	32.2 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	45.3 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 w
(111) Pier Protection	1 - Navigation protection not
(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 -
(100) Defense Highway	2 - The inventory route is on
(101) Parallel Structure	N - No parallel structure exis
(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 par
(20) Toll	3 - On free road. The structu
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	6
(59) Superstructure	6
(60) Substructure	6
(61) Channel & Channel Protection	8
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	5 - MS 18 / HS 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	48
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	29
(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	6
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	8 - Bridge foundations determined t
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	6222
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	05/19/2021		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
<p>* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.</p>			



Asset #00316(Routine)

District: 04, County: 127

Team Lead: Jeff Jones, Inspection Date: 05/19/2021

#### A-46 - Asset Files

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#### General Observation (False)

05/19/2021 - JCJ & TJL - Routine Inspection conducted this date.

06/20/2019 - EJW & JPW - Underwater Type 2 Inspection - wading and probing during turbid conditions indicate that footings have cover with no apparent scour problems at this inspection.

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US Highway 71 over Kings Relief - Scott Co.

Location: 0.40 MI N OF JCT SH 23&71

Team Lead: Jeff Jones, Inspection Date: 05/19/2021

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	683	659	24	0	0
1120	Efflorescence/Rust Staining	SF	24	0	24	0	0
510	Wearing Surfaces	SF	683	8	675	0	0
3210	Delam/Spall/Patched Area/Pothole	SF	5	0	5	0	0
3220	Crack (Wearing Surface)	SF	500	0	500	0	0
3230	Effectiveness (Wearing Surface)	SF	170	0	170	0	0
<p>(16) -This structure was originally constructed as a concrete deck girder. It was widened at a later date under AHTD Job # 4844 with concrete slab spans along both edges.</p> <p>-There is a patched area in the wearing surface of the deck located in the Right lane over Bent # 1.</p> <p>-There are several miscellaneous patched areas in the wearing surface of the deck.</p> <p>-Map cracking on the driving surface that has been sealed with epoxy in the past.</p> <p>-Pourable joint sealant in the longitudinal construction joints on the driving surface of the deck are deteriorated and partially missing.</p> <p>-There are longitudinal cracks adjacent to the longitudinal deck construction joints.</p> <p>-There are a few isolated transverse cracks with efflorescence and brown staining visible from the undersurface of the deck.</p> <p>- One diagonal hairline crack with light efflorescence adjacent to Girder # 1 over Bent # 2.</p> <p>(510-16) -Concrete deck girder with a rigid concrete wearing surface that has been widened by a concrete slab span along the edges.</p> <p>-Cracking in the wearing surface that has been sealed in areas with epoxy in the past.</p> <p>-Several patched areas in the wearing surface of the deck.</p>							
38	RC Slab	SF	957	846	103	8	0
1080	Delamination/Spall/Patched Area	SF	21	0	19	2	0
1090	Exposed Rebar	SF	6	0	0	6	0
1120	Efflorescence/Rust Staining	SF	6	0	6	0	0
1130	Cracking (RC and Other)	SF	78	0	78	0	0
<p>(38) Slab Span portions of the deck -</p> <p>-There is a 12" area that is breaking apart along the Left longitudinal construction joint on the driving surface of the slab.</p> <p>Slab Soffit -</p> <p>-One transverse hairline crack near mid-span.</p> <p>- Longitudinal cracks, delaminations, and spalled areas with no exposed reinforcing steel along the edges of the deck are visible from the undersurface of the slab.</p> <p>-This structure was constructed without drip grooves in the slab soffit.</p>							
110	Reinforced Concrete Open Girder/Beam	LF	105	68	37	0	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
1130	Cracking (RC and Other)	LF	36	0	36	0	0
<p>(110) -One shallow Softball sized spall on the exterior side of Girder # 3 with no exposed reinforcing steel, adjacent to Bent # 1.</p> <p>-There are a few vertical hairline flexure/shrinkage cracks in the concrete deck girders.</p>							
215	Reinforced Concrete Abutment	LF	168	136	18	14	0
1080	Delamination/Spall/Patched Area	LF	6	0	0	6	0



## US Highway 71 over Kings Relief - Scott Co.

**Location: 0.40 MI N OF JCT SH 23&71**

**Team Lead:** Jeff Jones, **Inspection Date:** 05/19/2021

## Deck

[illegible]



## US Highway 71 over Kings Relief - Scott Co.

**Location: 0.40 MI N OF JCT SH 23&71**

**Team Lead:** Jeff Jones, **Inspection Date:** 05/19/2021

## Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
110	Reinforced Concrete Open Girder/Beam	LF	105	68	37	0	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
1130	Cracking (RC and Other)	LF	36	0	36	0	0
(110) -One shallow Softball sized spall on the exterior side of Girder # 3 with no exposed reinforcing steel, adjacent to Bent # 1. -There are a few vertical hairline flexure/shrinkage cracks in the concrete deck girders.							

## US Highway 71 over Kings Relief - Scott Co.

**Location: 0.40 MI N OF JCT SH 23&71**

**Team Lead: Jeff Jones, Inspection Date: 05/19/2021**

## Substructure

[illegible]



Asset #00316(Routine)

US Highway 71 over Kings Relief - Scott Co.

Location: 0.40 MI N OF JCT SH 23&71

Team Lead: Jeff Jones, Inspection Date: 05/19/2021

## Culvert

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4





Elevation.



Approach roadway facing South.



Deck. Typical.



Roadway





Bent # 1 spalling with exposed reinforcing steel.



Typical undersurface of the deck.



Bent # 1 Rt cracking with efflorescence buildup.



Typical driving surface of the deck





Spalling with exposed reinforcing steel and delaminated concrete along the right side.



Bent # 2 Lt cracking with efflorescence.



Elevation



Missing joint sealant.





Longitudinal construction joint with missing sealant.



Deck wearing surface. Looking south.



Transverse hairline crack in the deck soffit.



Diagonal hairline crack with light efflorescence in the deck soffit adjacent to Girder # 1 at Bent # 2.





Diagonal hairline crack with light efflorescence in the deck soffit adjacent to Girder # 1 at Bent # 2.



Rigid concrete wearing surface over the original T Beam portion of the deck.



Patched area in the wearing surface of the deck located in the Right lane over Bent # 1.



There is a 12" area that is breaking apart along the Left longitudinal construction joint.





Slab soffit. Typical.



Transverse hairline crack with light efflorescence in the Right slab soffit.



Delaminated area in the Right slab soffit.



Superstructure. Typical.





Bent # 2. Typical.



Bent # 1. Typical.



Spalling with diagonal cracking with efflorescence in the Right side of Bent # 1 adjacent to Girder # 3.



Spalling with exposed reinforcing steel in the Right side of Bent # 2 adjacent to Girder # 3.



Parapet wall. Typical.



Spalls with exposed reinforcing steel inside the drain openings of the parapet walls.



**Maintenance Needs**

**Date Reported:** 07/28/2015  
**Priority:** D- Routine  
**Type of Work:** Repair (General)  
**Status:** Open  
**Component:** Element

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**Deficiency Description**

R.C. Deck / Slab

The longitudinal construction joint sealant in the deck is deteriorated and missing in locations.

**Remarks**

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Missing joint sealant.



Missing sealant in the longitudinal construction joint.



**Asset #00316**(Routine)

**US Highway 71 over Kings Relief - Scott Co.**

**Location: 0.40 MI N OF JCT SH 23&71**

**Team Lead:** Jeff Jones, **Inspection Date:** 05/19/2021

**Date Reported:** 06/20/2019  
**Priority:** D- Routine  
**Type of Work:** Repair (General)  
**Status:** Open  
**Component:** Element

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**Deficiency Description**

Substructure

The abutments have concrete delaminations and spalling with exposed reinforcing steel.

**Remarks**

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Bent # 1 spalling with exposed reinforcing steel.



Bent # 2 Lt cracking with efflorescence.





Bent # 1 Rt cracking with efflorescence buildup.



Bent # 2 adjacent to Girder # 3. Spall with exposed reinforcing steel.



**Date Reported:** 05/20/2021  
**Priority:** D- Routine  
**Type of Work:** Repair (General)  
**Status:** Open  
**Component:** Approach

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**Deficiency Description**

The approach roadway asphalt is breaking apart at the North bridge end.

**Remarks**

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The approach roadway asphalt is breaking apart at the North bridge end.

**Date Reported:** 05/20/2021  
**Priority:** D- Routine  
**Type of Work:** Repair (General)  
**Status:** Open  
**Component:** Element

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**Deficiency Description**

The undersurface of the exterior edges of the deck have delaminated areas and spalls with exposed reinforcing steel.

**Remarks**

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Left deck soffit. Spall with exposed reinforcing steel.



Left edge of deck soffit. Delaminated areas. Typical along both edges of the structure.



**Asset #00316(Routine)**

**US Highway 71 over Kings Relief - Scott Co.**

**Location: 0.40 MI N OF JCT SH 23&71**

**Team Lead: Jeff Jones, Inspection Date: 05/19/2021**

## **Routine Maintenance**

Check Box Maintenance Items

<b>Data Field</b>	<b>Value</b>
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	
A-56 - Joint Cleaning/Flushing Needed	
A-57-Beam End and Bearing Paint Needed	
A-58 - Cap Cleaning/Flushing Needed	
A-59 - Joint Repair Needed	
A-60 - Full Beam Painting Needed	
A-61 - Polymer Overlay Advised	
A-62 - Hydo and LMC Advised	



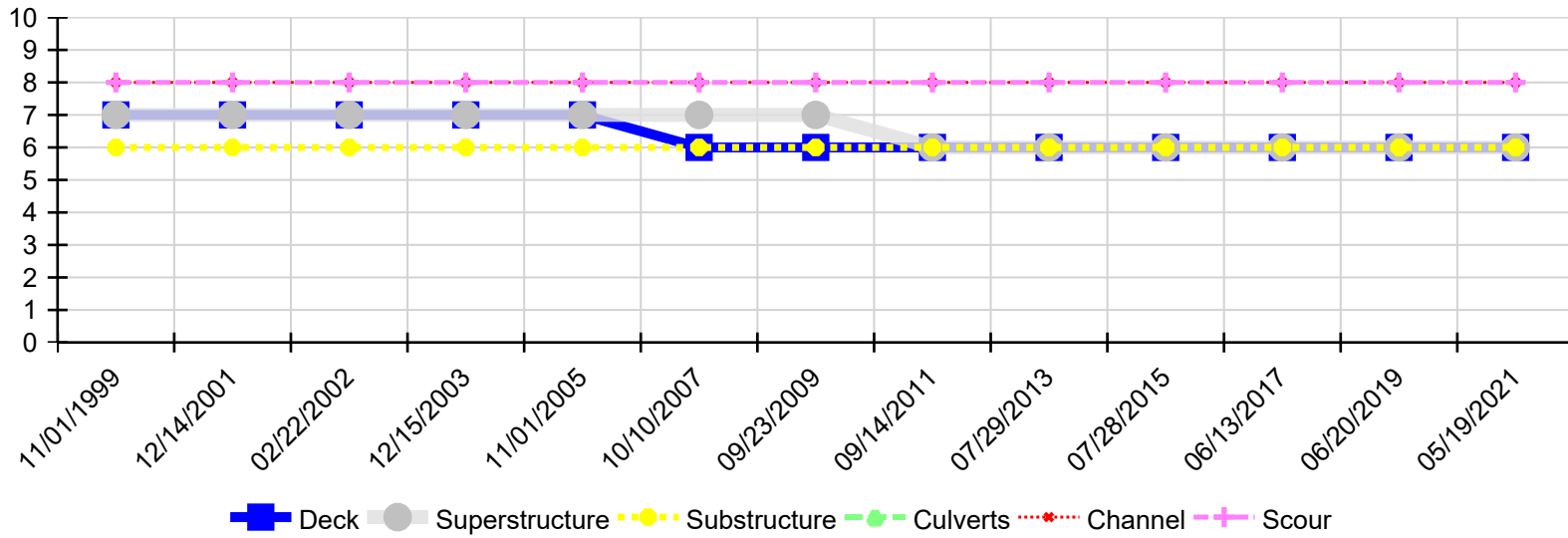
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Location: 0.40 MI N OF JCT SH 23&71

Team Lead: Jeff Jones, Inspection Date: 05/19/2021

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
05/19/2021	6	6	6	N	8	8
06/20/2019	6	6	6	N	8	8
06/13/2017	6	6	6	N	8	8
07/28/2015	6	6	6	N	8	8
07/29/2013	6	6	6	N	8	8
09/14/2011	6	6	6	N	8	8
09/23/2009	6	7	6	N	8	8
10/10/2007	6	7	6	N	8	8
11/01/2005	7	7	6	N	8	8
12/15/2003	7	7	6	N	8	8
02/22/2002	7	7	6	N	8	8
12/14/2001	7	7	6	N	8	8
11/01/1999	7	7	6	N	8	8