

## Bridge B5946 Inspection Report



Latitude:36.22004, Longitude:-94.18055

Route:49 Section:29 Log:74.78

Arnold Road ID:4x49x29xA, Arnold Log mile:74.752

District 09, 7 - Benton County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

### Bridge Posting Information

41 - Structure Open/Posted/Closed: A - Open, no restriction

70 - Bridge Posting: 5 - Equal to or above legal loads

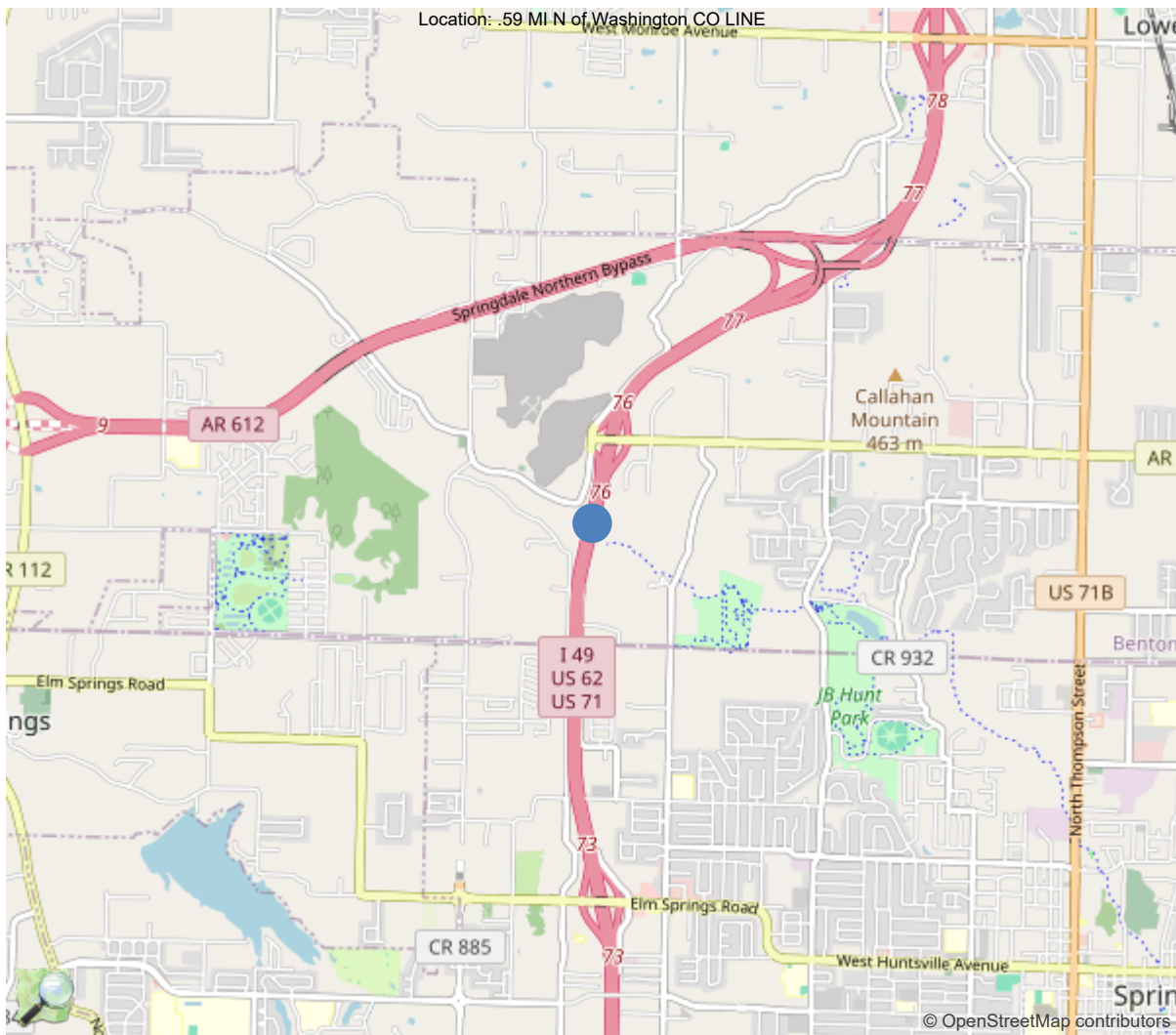
Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	40		
Code 9 (31 Tons)	50		
Code 5 (40 Tons)	60		

If calculated capacity is less than the Legal Load Listed, the Bridge Legally Requires Posting Signs to be installed by the Bridge Owner.



30"x36" AR





36.22004, -94.18055

## National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	B5946
(5) Inventory Route	1
(2) Highway Agency District	09 - District 09
(3) County Code	7 - Benton County
(4) Place Code	66080
(6) Features Intersected	SPRING CREEK
(7) Facility Carried	I 49 Benton 1
(9) Location	.59 MI N of Washington CO LINE
(11) Mile Point	74.78 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000049000
(16) Latitude	36.22004
(17) Longitude	-94.18055
(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	4
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	0 - None (no additional concrete thickne
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1982
(106) Year Reconstructed	0
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	3
Under	0
(29) Average Daily Traffic	108000
(30) Year of ADT	2023
(109) Truck ADT	8 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	79 ft
(49) Structure Length	290 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	62 ft
(52) Deck Width Out to Out	64.9 ft
(32) Approach Roadway Width (W/Shoulders)	62 ft
(33) Bridge Median	0 - No median
(34) Skew	20 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	62 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	11 - Urban Principal Arterial
(100) Defense Highway	1 - The inventory route is on
(101) Parallel Structure	R - The right structure of par
(102) Direction of Traffic	1 - 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	5
(59) Superstructure	7
(60) Substructure	7
(61) Channel & Channel Protection	6
(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	60
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
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	
(68) Deck Geometry	9
(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	120000
(115) Year of Future ADT	2035

INSPECTIONS *			
(90) Inspection Date			04/29/2024
(91) Frequency			24
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* 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.			



Team Lead: Benjamin Smith, Inspection Date: 04/29/2024

### Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	B5946
B.ID.02 Bridge Name	
B.ID.03 Previous Bridge No.	
B.W.01 Year Built	1982

LOCATION	
B.L.01 State Code	5 - Arkansas
B.L.02 County Code	7 - Benton County
B.L.03 Place Code	66080 - Springdale
B.L.04 Highway Agency District	09 - District 09
B.L.05 Latitude	36.22004
B.L.06 Longitude	-94.18055
B.L.07 Border Bridge Number	
B.L.08 Border Bridge State or Country Code	
B.L.09 Border Bridge Insp. Resp.	
B.L.10 Border Bridge Designated Lead State	
B.L.11 Bridge Location	.59 MI N WASH CO LINE
B.L.12 Metropolitan Planning Organization	5

CLASSIFICATION	
B.CL.01 Owner	S01 - State transportation departme
B.CL.02 Maint. Responsibility	S01 - State transportation departme
B.CL.03 Federal or Tribal Land Access	N - Not Applicable
B.CL.04 Historic Significance	N - Bridge is not eligible for the
B.CL.05 Toll	N - Bridge does not carry a toll ro
B.CL.06 Emergency Evacuation Designation	

ROADSIDE HARDWARE	
B.RH.01A Bridge Railing Type	
B.RH.01B Bridge Railing Year (YY)	
B.RH.01C Bridge Railing Test Level	
B.RH.02A Transition Type	
B.RH.02B Transition Year (YY)	
B.RH.02C Transition Test Level	

BRIDGE GEOMETRY	
B.G.01 NBIS Bridge Length	288
B.G.02 Total Bridge Length	290
B.G.03 Max Span Length	79.1
B.G.04 Min Span Length	65
B.G.05 Bridge Width Out-to-Out	65
B.G.06 Bridge Width Curb-to-Curb	62
B.G.07 Left Curb or Sidewalk Width	0
B.G.08 Right Curb or Sidewalk Width	0
B.G.09 Approach Roadway Width	62

B.G.10 Bridge Median	0 - No median
B.G.11 Skew	20
B.G.12 Curved Bridge	N - Not curved
B.G.13 Max Bridge Height	45
B.G.14 Sidehill Bridge	N - Not a sidehill bridge
B.G.15 Irregular Deck Area	
B.G.16 Calculated Deck Area	18840.3

LOADS AND LOAD RATING	
B.LR.01 Design Load	HS20 - HS-20
B.LR.02 Design Method	
B.LR.03 Load Rating Date	
B.LR.04 Load Rating Method	LFR - Load Factor Rating
B.LR.05 Inventory Load Rating Factor	1
B.LR.06 Operating Load Rating Factor	1.67
B.LR.07 Controlling Legal Load Rating Factor	
B.LR.08 Routine Permit Loads	

INSPECTION REQUIREMENTS	
B.IR.01 NSTM Inspection Required	N - NSTM inspection not required.
B.IR.02 Fatigue Details	N - No E/E' details
B.IR.03 UW Inspection Required	N - Underwater inspection not requi
B.IR.04 Complex Feature	N - Bridge does not have complex fe

COMPONENT CONDITION RATINGS	
B.C.01 Deck Condition Rating	5 - FAIR - Some moderate defec
B.C.02 Superstructure Condition	7 - GOOD - Some minor defects.
B.C.03 Substructure Condition	7 - GOOD - Some minor defects.
B.C.04 Culvert Condition	N - NOT APPLICABLE - Component
B.C.05 Bridge Railing Condition	7 - GOOD - Some minor defects.
B.C.06 Bridge Railing Transitions Condition	8 - VERY GOOD - Some inherent
B.C.07 Bridge Bearings Cond.	6 - SATISFACTORY - Widespread
B.C.08 Bridge Joints Condition	7 - GOOD - Some minor defects.
B.C.09 Channel Condition Rating	6 - SATISFACTORY - Widespread
B.C.10 Channel Protection Condition	7 - GOOD - Some minor defects.
B.C.11 Scour Condition Rating	8 - Insignificant scour.
B.C.12 Bridge Condition Classification	F - Fair
B.C.13 Lowest Condition Rating	5 - FAIR - Some moderate defec
B.C.14 NSTM Insp. Condition	N - NOT APPLICABLE - Component
B.C.15 UW Inspection Condition	

APPRAISAL	
B.AP.01 Approach Roadway Alignment	G - Good
B.AP.02 Overtopping Likelihood	1 - Remote - once every 100 years o
B.AP.03 Scour Vulnerability	AB-T - TEMP - Stable for scour, pos
B.AP.04 Scour Plan of Action	0 - A scour POA is not required.
B.AP.05 Seismic Vulnerability	0 - Seismic evaluation not complete

Team Lead: Benjamin Smith, Inspection Date: 04/29/2024

SPAN SETS			
<b>M1</b>			
B.SP.02 # of Spans	4	B.SP.08 Deck Interaction	CU - Composite - unshored cons
B.SP.03 # of Beam Lines	6	B.SP.09 Deck Material and Type	C01 - Reinforced concrete - ca
B.SP.04 Span Material	S01 - Steel - rolled	B.SP.10 Wearing Surface	0 - None
B.SP.05 Span Continuity	2 - Continuous	B.SP.11 Deck Protective System	0 - None
B.SP.06 Span Type	G02 - Girder/beam - I-shaped s	B.SP.12 Deck Reinforcing Protective System	0 - None
B.SP.07 Span Protective System	C01 - Coating - paint	B.SP.13 Deck Stay-In-Place Forms	M01 - Metal
<b>W1</b>			
B.SP.02 # of Spans	4	B.SP.08 Deck Interaction	CU - Composite - unshored cons
B.SP.03 # of Beam Lines	3	B.SP.09 Deck Material and Type	C01 - Reinforced concrete - ca
B.SP.04 Span Material	S01 - Steel - rolled	B.SP.10 Wearing Surface	0 - None
B.SP.05 Span Continuity	2 - Continuous	B.SP.11 Deck Protective System	0 - None
B.SP.06 Span Type	G02 - Girder/beam - I-shaped s	B.SP.12 Deck Reinforcing Protective System	0 - None
B.SP.07 Span Protective System	P01 - Patina - uncoated weathe	B.SP.13 Deck Stay-In-Place Forms	M01 - Metal
SUBSTRUCTURE SETS			
<b>A1</b>			
B.SB.02 No. of Substructure Units	1	B.SB.05 Substructure Protective System	0 - None
B.SB.03 Substructure Material	C01 - Reinforced concrete - ca	B.SB.06 Foundation Type	F02 - Footing - on rock
B.SB.04 Substructure Type	A02 - Abutment - stub	B.SB.07 Foundation Protective System	0 - None
<b>A2</b>			
B.SB.02 No. of Substructure Units	1	B.SB.05 Substructure Protective System	0 - None
B.SB.03 Substructure Material	C01 - Reinforced concrete - ca	B.SB.06 Foundation Type	P01 - Pile - steel H-shape
B.SB.04 Substructure Type	A02 - Abutment - stub	B.SB.07 Foundation Protective System	0 - None
<b>P1</b>			
B.SB.02 No. of Substructure Units	3	B.SB.05 Substructure Protective System	0 - None
B.SB.03 Substructure Material	C01 - Reinforced concrete - ca	B.SB.06 Foundation Type	F02 - Footing - on rock
B.SB.04 Substructure Type	B01 - Bent - column or open	B.SB.07 Foundation Protective System	0 - None
<b>W1</b>			
B.SB.02 No. of Substructure Units	3	B.SB.05 Substructure Protective System	0 - None
B.SB.03 Substructure Material	C01 - Reinforced concrete - ca	B.SB.06 Foundation Type	F02 - Footing - on rock
B.SB.04 Substructure Type	P02 - Pier - single column	B.SB.07 Foundation Protective System	0 - None

Team Lead: Benjamin Smith, Inspection Date: 04/29/2024

## HIGHWAY FEATURES

H1			
B.F.02 Feature Location	C - Carried on bridge	B.H.09 Annual ADT	13500
B.F.03 Feature Name	I 49 Benton 1	B.H.10 Annual ADTT	1080
B.H.01 Functional Classification	1 - Interstate	B.H.11 Year of Annual ADT	2018
B.H.02 Urban Code	T-U	B.H.12 Highway Max Usable Vertical Clearance	99.9
B.H.03 NHS Designation	Y - NHS	B.H.13 Highway Min Vertical Clearance	99.9
B.H.04 National Highway Freight Network	1-T - TEMP - NHFN - 1 or 2 or	B.H.14 Highway Min Horizontal Clearance, Left	
B.H.05 STRAHNET Designation	1 - STRAHNET route	B.H.15 Highway Min Horizontal Clearance, Right	
B.H.06 LRS Route ID	49000	B.H.16 Highway Max Usable Surface Width	61.6
B.H.07 LRS Mile Point	74.78	B.H.17 Bypass Detour Length	1
B.H.08 Lanes On Highway	3	B.H.18 Crossing Bridge Number	

## HIGHWAY ROUTES

Highway Parent	B.RT.01 Route Designation	B.RT.02 Route Number	B.RT.03 Route Direction	B.RT.04 Route Type	B.RT.05 Service Type
H1	1	49N	1-T - TEMP - One-way traffic - NB or EB or SB or WB	1 - Interstate route	1 - Mainline

## WATERWAY FEATURES

W1			
B.F.02 Feature Location	B - Below bridge	B.N.03 Movable Bridge Max Navigation Vertical Clearance	
B.F.03 Feature Name	SPRING CREEK	B.N.04 Navigation Channel Width	
B.N.01 Navigable Waterway	N - Not navigable waters	B.N.05 Navigation Channel Min Horizontal Clearance	
B.N.02 Navigation Min Vertical Clearance		B.N.06 Substructure Navigation Protection	

## POSTING STATUS DATA

B.PS.01 Load Posting Status	B.PS.02 Posting Status Change Date
PO - Permanent and Open	

## LOAD EVALUATION AND POSTING

B.EP.01 Legal Load Configuration	B.EP.02 Legal Load Rating Factor	B.EP.03 Posting Type	B.EP.04 Posting Value
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Asset #B5946(Routine, Underwater type 2)

I 49 Benton 1 over SPRING CREEK

Location: .59 MI N of Washington CO LINE

Team Lead: Benjamin Smith Inspection Date: 04/29/2024

## Inspection Notes

### General Observation

The structure is logged from South to North.

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**58 - Deck** (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

The deck surface has moderate amounts of large cs3 delamination and spalling with exposed rebar.

The undersurface has sip forms. The overhangs have cs2 efflorescence cracking.

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**59 - Superstructure** (7 - GOOD CONDITION - some minor problems.)

Many of the beam ends at the abutments have cs3 corrosion on the bottom flanges.

The beams through out the structure have freckled rust with areas of general cs2 corrosion. The exterior bottom flange of beam #9 has cs2 corrosion for the length of the structure.

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**60 - Substructure** (7 - GOOD CONDITION - some minor problems.)

The abutments have shrinkage cracking with a few minor efflorescence cracks. The pier caps and columns are generally in good condition with a few minor defects.

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**61 - Channel/Channel Protection** (6 - Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly.)  
The upstream channel swings toward the abutment #2 side of the channel. The upstream channel is vegetated.  
The channel beneath the structure has rip rap placed on the abutment #2 side. Insignificant scour was noted around some of the columns.

The downstream channel has large areas of bank slumping. The downstream channel is vegetated.

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## National Bridge Element Quantities and Notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	18821	17422	1190	209	0
1080	Delamination/Spall/Patched Area	SF	173	0	0	173	0
1090	Exposed Rebar	SF	66	0	30	36	0
1130	Cracking (RC and Other)	SF	1160	0	1160	0	0
<p>(12) The driving surface has typical hairline transverse and longitudinal cracking at random spacings</p> <p>-Spans #2, #3 and #4 have a moderate amount of deep spalling that exposes the reinforcing steel and cs3 delamination.</p> <p>Undersurface-</p> <p>Bay #4 has partial sip forms where the widening project began. Cs2 efflorescence was noted in visible portion of the undersurface in bay #4.</p> <p>-The widened portion of the deck has short duration hairline transverse cracks at random spacing adjacent to the bridge railing with one isolated area of superficial map cracking. The transverse cracking is visible in the undersurface of the deck overhang with light cs2 efflorescence visible.</p>							
107	Steel Open Girder/Beam	LF	2880	2536	279	65	0
1000	Corrosion	LF	342	0	277	65	0
1020	Connection	LF	2	0	2	0	0
515	Steel Protective Coating	SF	30148	29464	554	130	0
3440	Effectiveness (Steel Protective Coatings)	SF	684	0	554	130	0
<p>(107)</p> <p>9 beam system.</p> <p>3 A588 weathering steel and 6 painted steel beams.</p> <p>-No noteworthy deficiencies with new A588 weathering steel girders added as part of the widening process.</p> <p>-Bents 1 &amp; 5 (Ends of Girders) has active corrosion with heavy pitting and flaking rust</p> <p>-Girders 5 &amp; 6 bearings are missing one nut a piece.</p> <p>-Failing paint system with rust showing in random locations throughout the structure.</p> <p>Span #1-</p> <p>Beam #1- (A588) no deficiencies noted.</p> <p>Beam #2- (A588) no deficiencies noted.</p> <p>Beam #3- (A588) no deficiencies noted.</p> <p>Beam #4- has 2' of cs2 corrosion at the beginning of span #1. The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #5- has 5' of cs3 corrosion on the bottom flange at the beginning of span #1. The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #6- has 4' of cs3 corrosion at the beginning of span #1. The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #7- has 5' of cs3 corrosion at the beginning of span #1. The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #8- has 5' of cs3 corrosion at the beginning of span #1. The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #9- has cs2 corrosion on the exterior bottom flange for the length of span #1. (65'). The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p>							

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<p>Span #2-</p> <p>Beam #1- (A588) no deficiencies noted.</p> <p>Beam #2- (A588) no deficiencies noted.</p> <p>Beam #3- (A588) no deficiencies noted.</p> <p>Beam #4- The beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #5- The beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #6- The beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #7- The beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #8- The beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #9- has cs2 corrosion on the exterior bottom flange for the length of span #1. (65'). The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Span #3-</p> <p>Beam #1- (A588) no deficiencies noted.</p> <p>Beam #2- (A588) no deficiencies noted.</p> <p>Beam #3- (A588) no deficiencies noted.</p> <p>Beam #4- The beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #5- The beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #6- The beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #7- The beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #8- The beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #9- has cs2 corrosion on the exterior bottom flange for the length of span #1. (65'). The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Span #4-</p> <p>Beam #1- (A588) no deficiencies noted.</p> <p>Beam #2- (A588) no deficiencies noted.</p> <p>Beam #3- (A588) no deficiencies noted.</p> <p>Beam #4- has 5' of cs2 corrosion on the bottom flange at the end of the span. The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #5- has 10' of cs2 corrosion on the exterior edge of the bottom flange. The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #6- has 15' of cs3 corrosion on the bottom flange at the end of the span. The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #7- has 20' of cs3 corrosion on the bottom flange at the end of the span. The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #8- has 11' of cs3 corrosion on the bottom flange at the end of the span with an additional 8' of cs2 corrosion extending back into the span from the cs3 location. The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p> <p>Beam #9- has cs2 corrosion on the bottom flange and lower web for the length of the span. (65'). The remainder of the beam has freckled rust with areas of general cs2 corrosion.</p>							
205	Reinforced Concrete Column	EA	9	8	1	0	0
1190	Abrasion/Wear (PSC/RC)	EA	1	0	1	0	0
<p>(205)</p> <p>-One new hammerhead type pier has been added at bents #1, #2, and #3 as part of the widening process.</p> <p>Bent #1 columns-</p> <p>Column #1- no deficiencies noted.</p> <p>Column #2- no deficiencies noted.</p> <p>Column #3- The back face of the single column pier at Bent #1 has a shallow baseball-sized spall with no rebar exposed mid-way up the column.</p> <p>Bent #2 columns-</p> <p>Column #1- no deficiencies noted.</p> <p>Column #2- has cs2 abrasion on the lower portion.</p>							





Asset #B5946(Routine, Underwater type 2)

I 49 Benton 1 over SPRING CREEK

Location: .59 MI N of Washington CO LINE

Team Lead: Benjamin Smith Inspection Date: 04/29/2024

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<p>Column #3- no deficiencies noted.</p> <p>Bent #3 columns-</p> <p>Column #1- no deficiencies noted.</p> <p>Column #2- no deficiencies noted.</p> <p>Column #3- no deficiencies noted.</p>							
215	Reinforced Concrete Abutment	LF	136	105	31	0	0
1120	Efflorescence/Rust Staining	LF	3	0	3	0	0
1130	Cracking (RC and Other)	LF	28	0	28	0	0
<p>(215)</p> <p>Abutment #1- the back wall in bays #2 and #3 have hairline vertical cracks in the widened portion of the abutment. Rip rap has been placed around bent #1 at the toe of the slope. The widened portion of the abutment has transverse cracking at random spacing in the top of back wall visible from the driving surface.</p> <p>Abutment #2- has 3' of cs2 efflorescence in the back wall.</p> <p>-The widened portion of the abutment has transverse cracking at random spacing in the top of back wall visible from the driving surface.</p>							
234	Reinforced Concrete Pier Cap	LF	188	188	0	0	0
<p>(234)</p> <p>-One new hammerhead type pier has been added at Bents #1, #2 and #3 as part of the widening process.</p> <p>Pier cap #1- No noteworthy deficiencies to the cap at this inspection.</p> <p>Pier cap #2- No noteworthy deficiencies to the cap at this inspection.</p> <p>Pier cap #3- No noteworthy deficiencies to the cap at this inspection.</p>							
301	Pourable Joint Seal	LF	130	123	0	7	0
2310	Leakage	LF	7	0	0	7	0
<p>(301) The expansion joint seals have been replaced with a pourable type sealant as part of the widening job. The foam backer-rod is beginning to be displaced in locations at both abutments.</p> <p>Abutment #1 pourable seal- no deficiencies noted. The joint seal has loose debris impaction the gutter lines.</p> <p>Abutment #2 seal- a 4' section of the armoring plate has been removed. The seal has 7' of cs3 leakage. The joint seal has loose debris impaction the gutter lines.</p>							
310	Elastomeric Bearing	EA	45	32	4	9	0
1000	Corrosion	EA	11	0	2	9	0
1020	Connection	EA	2	0	2	0	0
515	Steel Protective Coating	SF	90	68	4	18	0
3440	Effectiveness (Steel Protective Coatings)	SF	22	0	4	18	0
<p>(310)</p> <p>Abutment #1 bearings- bearings #5,6,7,8, and #9 have cs3 corrosion on the sole plates.</p> <p>Abutment #2 bearings- bearings #4,5 have cs2 corrosion on the sole plates. Bearings #6,7,8,9 have cs3 corrosion on the sole plates. Bearings #5,6 have one anchor bolt nut missing each.</p>							
321	Reinforced Concrete Approach Slab	SF	3920	3295	560	65	0

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1080	Delamination/Spall/Patched Area	SF	1	0	0	1	0
1130	Cracking (RC and Other)	SF	624	0	560	64	0
(321) Approach slab #1- has large unsealed transverse and longitudinal cracks with map cracking in the wheel paths.							
Approach slab #2- has map cracking in the wheel paths with large unsealed transverse and longitudinal cracks. The slab has 1' of cs3 spalling.							
331	Reinforced Concrete Bridge Railing	LF	580	580	0	0	0
(331) Left parapet wall- The parapet has been replaced as part of the widening process. The railing has vertical hairline cracking at random spacing in all spans.							
Right parapet wall- has vertical hairline cracking at random spacing in all spans.							
Approach railing- no deficiencies noted.							
Transitions- no deficiencies noted.							

## Inspection Photos and Notes



04/29/2024

Elevation view.



04/29/2024

Bridge plate.



04/29/2024

Driving surface view.



04/29/2024

Undersurface view.





Upstream channel view.



Downstream channel view.



Channel beneath the structure.



Approach view in direction of log mile.





Transition area.



Weathering steel beam condition.



Typical beam corrosion at the beginning of span #1.



Typical painted beam coating condition.





Column #2 of bent #2 is showing cs2 abrasion.



Abutment #2 seal condition.



Abutment #1 seal condition.



Span #4 delamination





Span #2 delamination

### Maintenance Needs

**Date Reported:** 04/20/2020

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Monitor

**Component:** Element

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### Deficiency Description

Deck Surface: Spans #2,#3, #4 have spalls with exposed rebar and cs3 delamination. Some spalls are approximately 2" in depth at the deepest point.

Approach slab #2 has a cs3 spall.

### Remarks

04/13/2020 WNR: Spalls and exposed steel have gotten worse since the last inspection.

Bridge Crew

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View of spalls in span #2 spalls



Span #3 right lane



Span #2 middle and right lane numerous spalls with steel exposed.



Deck span 2 - scattered deep spalls with steel exposed.



Asset #B5946(Routine, Underwater type 2)

I 49 Benton 1 over SPRING CREEK

Location: .59 MI N of Washington CO LINE

Team Lead: Benjamin Smith Inspection Date: 04/29/2024

## Routine Maintenance

### Check Box Maintenance Items

Type of Maintenance	Is Recommended?
A-54 - Sealable Deck Cracks	Yes
A-55 - Deck Washing Needed	No
A-56 - Joint Cleaning/Flushing Needed	No
A-57 - Beam End and Bearing Paint Needed	Yes
A-58 - Cap Cleaning/Flushing Needed	No
A-59 - Joint Repair Needed	No
A-60 - Full Beam Painting Needed	Yes
A-61 - Polymer Overlay Advised	No
A-62 - Hydro and LMC Advised	Yes
A-63 - Missing/Incorrect Log Mile Signage	No
A-64 - Vegetation Removal Requested	No
A-65 - Clogged deck drains?	
A-66 - Approach minor pothole/leveling needed	

**A-54 - Sealable Deck Cracks (Yes)**

**A-55 - Deck Washing Needed (No)**

**A-56 - Joint Cleaning/Flushing Needed (No)**





**Asset #B5946**(Routine, Underwater type 2)

**I 49 Benton 1 over SPRING CREEK**

**Location: .59 MI N of Washington CO LINE**

**Team Lead: Benjamin Smith Inspection Date: 04/29/2024**

**A-57 - Girder End and Bearing Painting Needed (Yes)**

**A-58 - Cap Cleaning/Flushing Needed (No)**

**A-59 - Joint Repair Needed (No)**

**A-60 - Full Girder Painting Needed (Yes)**

**A-61 - Polymer Overlay Advised (No)**

**A-62 - Hydro and LMC Advised (Yes)**

**A-63 - Missing/Incorrect Log Mile Signage (No)**

**A-64 - Vegetation Removal Requested (No)**

**A-65 - Clogged deck drains?**



**Asset #B5946**(Routine, Underwater type 2)

**I 49 Benton 1 over SPRING CREEK**

**Location: .59 MI N of Washington CO LINE**

**Team Lead: Benjamin Smith Inspection Date: 04/29/2024**

**A-66 - Approach minor pothole/leveling needed**



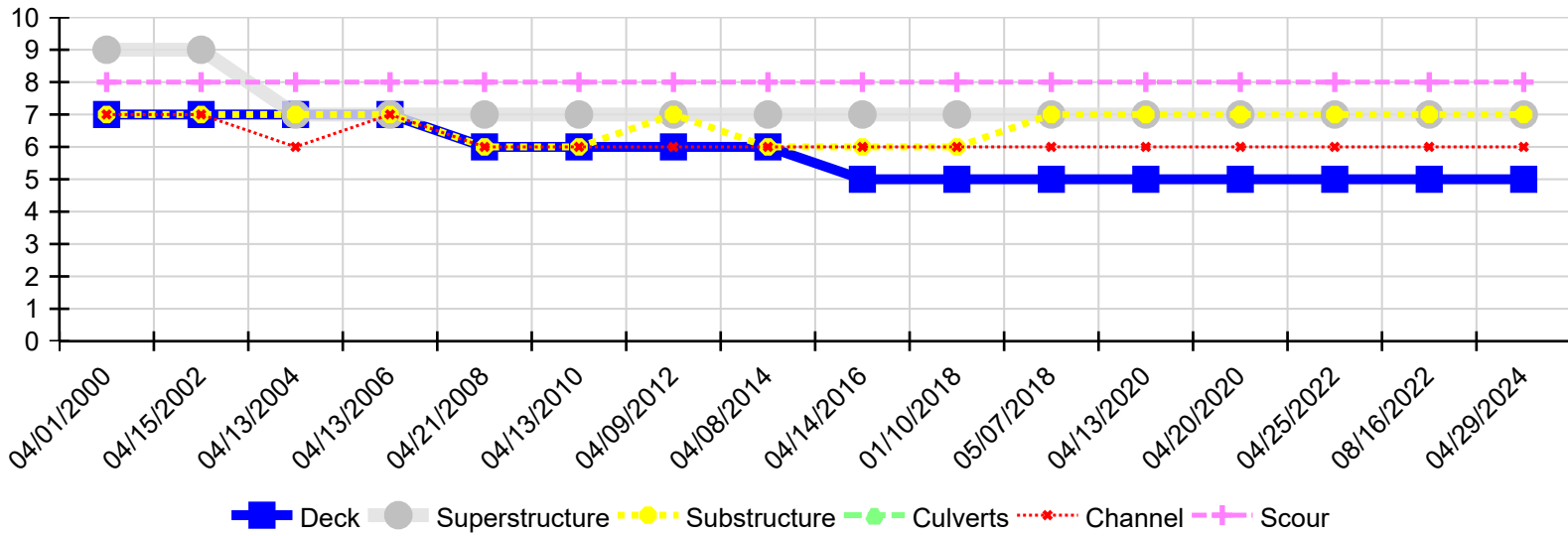
Asset #B5946(Routine, Underwater type 2)

I 49 Benton 1 over SPRING CREEK

Location: .59 MI N of Washington CO LINE

Team Lead: Benjamin Smith Inspection Date: 04/29/2024

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
04/29/2024	5	7	7	N	6	8
08/16/2022	5	7	7	N	6	8
04/25/2022	5	7	7	N	6	8
04/20/2020	5	7	7	N	6	8
04/13/2020	5	7	7	N	6	8
05/07/2018	5	7	7	N	6	8
01/10/2018	5	7	6	N	6	8
04/14/2016	5	7	6	N	6	8
04/08/2014	6	7	6	N	6	8
04/09/2012	6	7	7	N	6	8
04/13/2010	6	7	6	N	6	8
04/21/2008	6	7	6	N	6	8
04/13/2006	7	7	7	N	7	8
04/13/2004	7	7	7	N	6	8
04/15/2002	7	9	7	N	7	8
04/01/2000	7	9	7	N	7	8