



Latitude:33.59537, Longitude:-92.81975

Route:79 Section:04 Log:2.27

Arnold Road ID:52x79x4BxA, Arnold Log mile:2.293

District 07, 103 - Ouachita 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

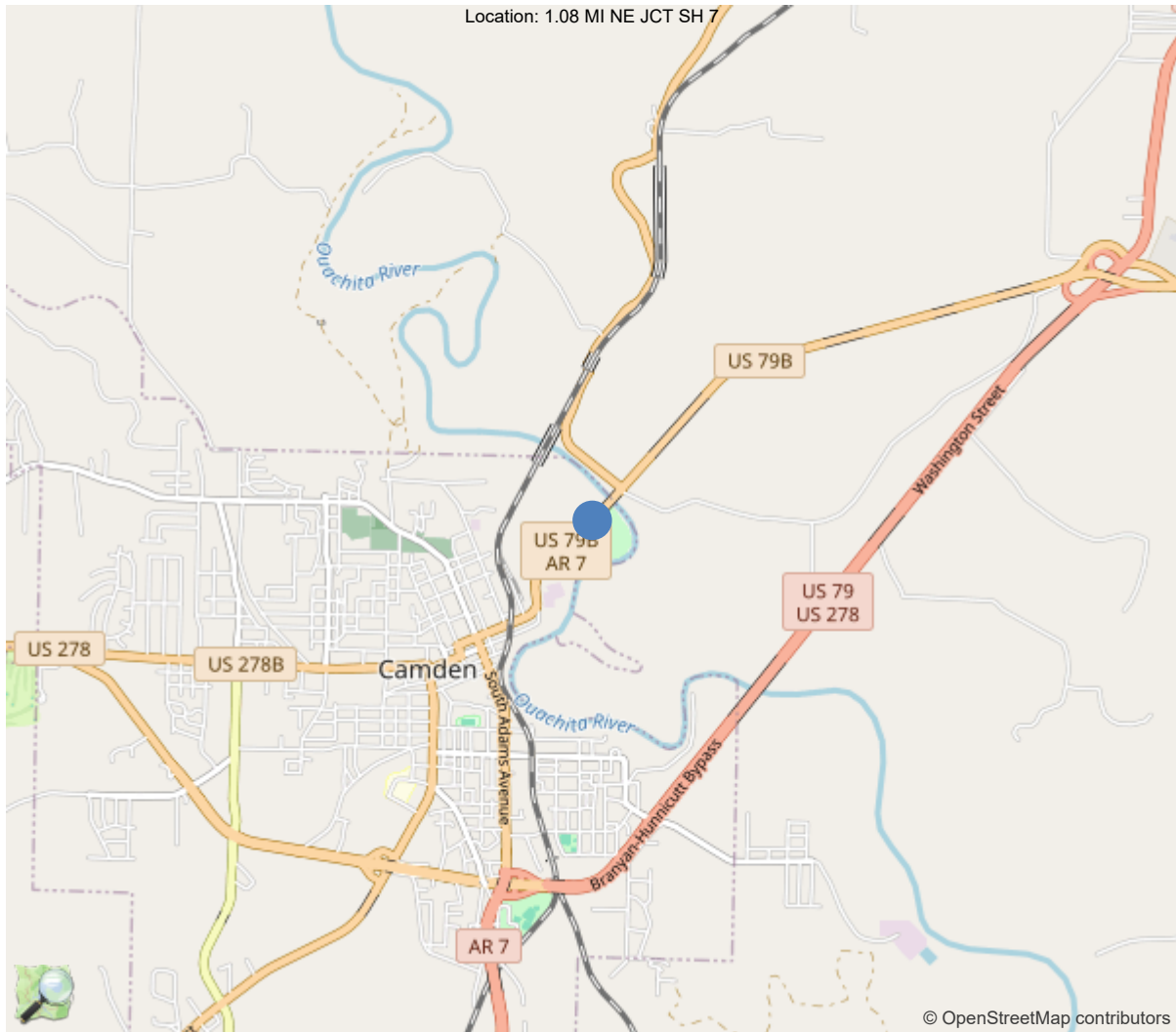
Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	36		
Code 9 (31 Tons)	40		
Code 5 (40 Tons)	46		

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





33.59537, -92.81975



Asset #02466(Routine, NSTM)

US 79-B S-4 LM 2.2 over OUACHITA RIVER

Location: 1.08 MI NE JCT SH 7

Team Lead: Anthony Wood Inspection Date: 10/03/2022

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	02466
(5) Inventory Route	1
(2) Highway Agency District	07 - District 07
(3) County Code	103 - Ouachita County
(4) Place Code	10720
(6) Features Intersected	OUACHITA RIVER
(7) Facility Carried	US 79-B S-4 LM 2.2
(9) Location	1.08 MI NE JCT SH 7
(11) Mile Point	2.27 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	33.59537
(17) Longitude	-92.81975
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	310
Material	3 - Steel
Type	10 - Truss - Thru
(44) Approach Structure Type	32
Material	3 - Steel
Type	2 - Stringer/Multi-beam or girder
(45) No. of Spans in Main Unit	3
(46) No. of Approach Spans	16
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	1 - Monolithic Concrete (concurrently pl
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1947
(106) Year Reconstructed	0
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	3700
(30) Year of ADT	2018
(109) Truck ADT	2 %
(19) Bypass, Detour Length	6 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	129 ft
(49) Structure Length	1000 ft
(50) Curb or Sidewalk Width	
Left	3.4 ft
Right	3.4 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	25.6 ft
(32) Approach Roadway Width (W/Shoulders)	39 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	25.3 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	0
(26) Functional Class	16 - Urban Minor Arterial
(100) Defense Highway	0 - The inventory route is not
(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	1 - Bridge is on the National
CONDITION	
(58) Deck	5
(59) Superstructure	4
(60) Substructure	5
(61) Channel & Channel Protection	5
(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	
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	
(68) Deck Geometry	2
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	7
(72) Approach Roadway Alignment	6
(36A) Bridge Railings	0 - Inspected feature does not meet
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	0 - Inspected feature does not meet
(113) Scour Critical Bridges	4 - Bridge foundations determined t
PROPOSED IMPROVEMENTS	
(75) Type of Work	31 - Replacement of bridge or
(76) Length of Structure Improvement	1040 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 176
(96) Total Project Cost	\$ 1810
(97) Year of Improvement Cost Estimate	2003
(114) Future ADT	4100
(115) Year of Future ADT	2038

INSPECTIONS *			
(90) Inspection Date	10/03/2022		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	Yes	12	10/03/2022
B: Underwater Inspection	Yes	60	03/06/2022
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.			





### General Observation

12/26/2018 JPR -- This structure is logged from Southwest to Northeast.

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

Deck cracks, general wear and exposed aggregates.

**59 - Superstructure** (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

Paint system is failing on truss spans, chalky and some red lead is exposed. Some rusting @ areas where debris have accumulated on floor beam connections and flanges. 12/20/2017 JPR -- Bare metal with some pack rust and section loss present on the truss span

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

Pier wall # 1 (ahead side) has large spalls with exposed steel, up to 100% section loss to the outer bands of steel. Pier walls 2 and 3 have vertical cracks that emanate below the water level up to the top of the pier wall. Approach spans have several spalled places with some exposed steel.

**113 - Scour Critical Bridges** (4 - Bridge foundations determined to be stable for assessed or calculated scour conditions; field review indicates action is required to protect exposed foundations (see HEC 23).)

Updated based on findings of underwater inspection.

### A-114 - Underwater Inspection General Observation

Engineer of Record: Samuel Williams, PE

Team Leader: Samuel Williams, PE

Team Members: AR, LA, CK

Total Substructure Units: 21

Substructure Units in Water: Piers 2-3

Inventory Direction: S to N

Direction of Flow: W to E

Deepest Water Depth: 30.3 ft

Water Velocity: 0.7 FPS

Attachments: Channel Profile/Contour Map, Soundings Table, Inspection Procedures, Stamped Final Report

**A-115 - Underwater Inspection Channel/Channel Protection** (5 - Bank protection is being eroded. River control devices and/or embankment have major damage. Trees and brush restrict the channel.)

Overall, the channel is in fair condition. The upstream channel is well aligned with the substructure units, however there are signs of channel migration to the north. The banks upstream and downstream of the bridge are cut full height with extensive uprooted trees, worst along the north bank. Under the bridge the south bank is vegetated along most of the slope with broken concrete at the shoreline. The north bank under the bridge has a cut bank and is sparsely vegetated otherwise. There is heavy to severe timber debris around Piers 2 and 3, aggravating scour at Pier 3.

**A-116 - Underwater Inspection Substructure Condition (B.C.15)** (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

Overall the substructure units are in fair condition with major defects located on Pier 3 and minor to moderate defects on Pier 2. These defects include scour, cracks, and spalls on the piers and are quantified in the element level portion of this report.



Asset #02466(Routine, NSTM)

US 79-B S-4 LM 2.2 over OUACHITA RIVER

Location: 1.08 MI NE JCT SH 7

Team Lead: Anthony Wood Inspection Date: 10/03/2022

**A-117 - Underwater Scour Condition** (4 - Bridge foundations determined to be stable for assessed or calculated scour conditions; field review indicates action is required to protect exposed foundations (see HEC 23).)

Based on the available drawings dated 1944, approximately 18 feet of local scour has occurred at Pier 3, likely attributed to the severe accumulation of timber debris on the upstream nose. The south, upstream corner of the Pier 3 seal is undermined for a distance of 10' along the south face, up to 1.5'H x 3' max penetration, with one exposed timber pile. Based on plans, there is approximately 14 feet of remaining pile embedment at this corner. It is recommended to lower the Item 113 Scour rating from 5 to 4, due to the undermining and potential for further scour if the debris is not removed and/or channel is not stabilized. It is recommended to install engineered scour countermeasures to mitigate additional scour at Pier 3. A follow-up dive inspection, is recommended if a high-water event is experienced before countermeasures are installed.





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US 79-B S-4 LM 2.2 over OUACHITA RIVER

Location: 1.08 MI NE JCT SH 7

Team Lead: Anthony Wood Inspection Date: 10/03/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	30167	0	26323	3844	0
1080	Delamination/Spall/Patched Area	SF	120	0	74	46	0
1090	Exposed Rebar	SF	588	0	2	586	0
1130	Cracking (RC and Other)	SF	3212	0	0	3212	0
1190	Abrasion/Wear (PSC/RC)	SF	26247	0	26247	0	0
(12) APW & KVV - 10/25/22							
Moderate transverse cracks and areas of map cracking throughout approach spans. moderate transverse cracking in truss spans. Minor to moderate spalling with exposed reinforcing steel with section loss. Overhangs have moderate spalling with exposed reinforcing steel with section loss. Undersurface has moderate spalling with exposed reinforcing steel with section loss. Minor to moderate cracking with efflorescence with no build-up. The deck is non-composite and is floating in several locations near joints.							
107	Steel Open Girder/Beam	LF	3111	1174	456	1479	2
1000	Corrosion	LF	1937	0	456	1479	2
515	Steel Protective Coating	SF	20726	0	4867	8116	7743
3440	Effectiveness (Steel Protective Coatings)	LF	20726	0	4867	8116	7743
(107) APW & KVV - 10/25/22							
Past Maintenance forces have replaced girder ends ,some now have section loss. Bent 13, Span 13, Girder 3: Hole rusted through web, 16" long X 3" tall. Girders 1 & 5 have moderate to heavy active corrosion with flaking rust with up to 1/4" of section loss. Girders 1 & 5 have moderate active corrosion with flaking rust on the bottom flanges and webs with up to 3/16" section loss in several locations. Girders 1 & 5 have knife edge section loss in several locations where sidewalk supports are mounted. Girders 2 - 4 have minor to moderate active corrosion with flaking rust in several locations. Girders 1 - 5 have sag up to 0.31".							
113	Steel Stringer	LF	2646	2409	237	0	0
1000	Corrosion	LF	237	0	237	0	0
515	Steel Protective Coating	SF	9195	9195	0	0	0
(113) APW & KVV - 10/25/22							
Minor to moderate active corrosion at joint locations. Minor active corrosion along top flanges of stringers.							
120	Steel Truss	LF	1386	0	1294	92	0
1000	Corrosion	LF	1386	0	1294	92	0
515	Steel Protective Coating	SF	42516	0	3105	7524	31887
3440	Effectiveness (Steel Protective Coatings)	LF	42516	0	3105	7524	31887

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(120) APW & KWV - 10/25/22							
Upper Chord: No visible cracks. Surface rust forming throughout. Minor to moderate active corrosion with minor pack rust in various locations. Paint system is failing with surface rust and very limited effectiveness.							
Lower Chord: No visible cracks. Surface rust forming throughout. Minor to moderate active corrosion with flaking rust in several locations. Paint system is failing.							
Verticals and Diagonals: No visible cracks. Surface rust forming in several locations. Minor to moderate active corrosion with pack rust in various locations. Paint system is starting to deteriorate with scattered areas of flaking paint.							
152	Steel Floor Beam	LF	780	522	12	246	0
1000	Corrosion	LF	258	0	12	246	0
515	Steel Protective Coating	SF	4680	0	1687	2159	834
3440	Effectiveness (Steel Protective Coatings)	LF	4680	0	1687	2159	834
(152) APW & KWV - 10/25/22							
No visible cracks. Minor to moderate active corrosion with flaking rust on top flanges from edge of deck up to 8' inward. Moderate active corrosion with section loss on top flanges at joint locations. Moderate active corrosion with section loss up to knife edge in the top flanges at edge of deck. Moderate active corrosion with section loss up to 1/8" in webs at joint locations.							
162	Steel Gusset Plate	EA	312	288	24	0	0
1000	Corrosion	EA	24	0	24	0	0
515	Steel Protective Coating	SF	4312	0	1081	3145	86
3440	Effectiveness (Steel Protective Coatings)	EA	4312	0	1081	3145	86
(162) APW & KWV - 10/25/22							
No visible cracks. Surface rust forming in several locations. Minor to moderate active corrosion with minor pack rust in various locations.							
205	Reinforced Concrete Column	EA	41	21	12	8	0
1080	Delamination/Spall/Patched Area	EA	1	0	0	1	0
1090	Exposed Rebar	EA	7	0	0	7	0
1130	Cracking (RC and Other)	EA	1	0	1	0	0
1190	Abrasion/Wear (PSC/RC)	EA	11	0	11	0	0
(205) APW & KWV - 10/25/22							





Asset #02466(Routine, NSTM)

US 79-B S-4 LM 2.2 over OUACHITA RIVER

Location: 1.08 MI NE JCT SH 7

Team Lead: Anthony Wood Inspection Date: 10/03/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<p>Spalling with exposed reinforcing steel with section loss in several locations.  Minor cracking in various locations.  Minor abrasion in several locations.  (1080-205) 2022 Underwater - Pier 2/Column 2: spall 8"H x 6"W x 3"D on the northwest corner at the channel bottom (1EA, CS3)</p>							
210	Reinforced Concrete Pier Wall	LF	122	59	45	18	0
1010	Cracking	LF	2	0	0	2	0
1080	Delamination/Spall/Patched Area	LF	1	0	0	1	0
1090	Exposed Rebar	LF	14	0	0	14	0
1120	Efflorescence/Rust Staining	LF	1	0	0	1	0
1190	Abrasion/Wear (PSC/RC)	LF	45	0	45	0	0
<p>(210) APW &amp; KVV - 10/25/22</p> <p>Moderate spalling with exposed reinforcing steel with section loss in various locations.  Minor to moderate cracking in several locations.  Minor cracking with efflorescence in various locations.  moderate spalling in various locations.  (1010-210) 2022 Underwater - Piers 2 and 3: There are 1/8"W vertical cracks (1 on Pier 2 and 1 on Pier 3) at the center of the web walls, from 10' below the cap to the channel bottom (2LF, CS3)  (1190-210) 2022 Underwater.</p>							
215	Reinforced Concrete Abutment	LF	78	78	0	0	0
220	Reinforced Concrete Pile Cap/Footing	LF	35	0	25	10	0
6000	Scour	LF	35	0	25	10	0
<p>(220) 2022 Underwater - Qty Update: the Pier 3 footing is exposed and estimated to be 35'L, based on field measurements  2022 Underwater - Pier 3: there is typical scaling up to 2"D on the footing and voiding up to 5"D typical on the seal (no defect quantity)  2022 Underwater - Pier 3: there is a void along the full width of the upstream nose 12"H x 2.5'D, with 2 exposed timber piles (no defect quantity)  (6000-220) 2022 Underwater - Pier 3: The seal is undermined for a distance of 10' along the south face (upstream end). The undermining is up to 1.5'H and extends up to 3' under the seal, resulting in one timber pile being exposed. There is heavy timber debris on the upstream nose and around the north half of the pier, so there could be more timber piles exposed that were not able to be accessed. No defects were found on the timber piles. The remainder of the Pier 3 footing and seal is exposed up to 40"H (footing exposure = 36"H, seal exposure = up to 4"H) for the remaining perimeter of the south face (10LF, CS3 / 25LF, CS2)</p>							
227	Reinforced Concrete Pile	EA	5	5	0	0	0
228	Timber Pile	EA	3	3	0	0	0
<p>(228) 2022 Underwater - Qty update: At the Pier 3 footing, there is one (1) timber pile exposed in the undermined area at the upstream end of the south face and two (2) timber piles exposed in the void between the footing and seal on the upstream nose. There were no defects noted on these piles.</p>							
234	Reinforced Concrete Pier Cap	LF	592	560	5	27	0
1080	Delamination/Spall/Patched Area	LF	7	0	3	4	0
1090	Exposed Rebar	LF	18	0	0	18	0



Asset #02466(Routine, NSTM)

US 79-B S-4 LM 2.2 over OUACHITA RIVER

Location: 1.08 MI NE JCT SH 7

Team Lead: Anthony Wood Inspection Date: 10/03/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1130	Cracking (RC and Other)	LF	7	0	2	5	0
(234) APW & KWV - 10/25/22							
Minor to moderate cracking in various locations. Moderate spalling with exposed reinforcing steel with section loss in several locations. Minor to moderate spalling and areas of delam. in various locations.							
303	Assembly Joint with Seal	LF	160	144	0	0	16
2320	Seal Adhesion	LF	16	0	0	0	16
(303) APW & KWV - 10/25/22							
Pier 1 & 4: Joint armor has been removed in various locations. Pier 1 & 4: Loss of adhesion in various locations.							
304	Open Expansion Joint	LF	338	338	0	0	0
(304) APW & KWV - 10/25/22							
Repaired areas adjacent to joints in several locations.							
311	Movable Bearing	EA	90	0	2	88	0
1000	Corrosion	EA	90	0	2	88	0
(311) APW & KWV - 10/25/22							
Truss Spans: Minor to moderate active corrosion with flaking rust in various locations. Multi-Girder Spans: Moderate active corrosion with flaking rust and section loss in all bearings.							
313	Fixed Bearing	EA	90	0	0	90	0
1000	Corrosion	EA	90	0	0	90	0
(313) APW & KWV - 10/25/22							
Minor to moderate active corrosion with flaking rust and section loss in all bearings.							
330	Metal Bridge Railing	LF	904	0	904	0	0
1000	Corrosion	LF	904	0	904	0	0
(330) APW & KWV - 10/25/22							
Surface rust throughout structure.							
331	Reinforced Concrete Bridge Railing	LF	1098	1098	0	0	0





Elevation.



Multi-Girder Spans: Typical undersurface.



Bent 1, Back: Girders are suspended.



Truss Spans: Typical paint.





Truss Spans: Typical deck.



Multi-Girder Spans: Typical deck.



Inventory .



Minor active corrosion on gusset plates.





Truss Spans: Typical undersurface.



Span 6, Girder 1, 3rd Sidewalk Support: 1 missing bolt and top bolt sheared.



Span 6, Top Flange @ Sidewalk Supports: Active corrosion with knife edge section loss.



All spans have approximately 0.31" of sag in girders.





Span 2, Girder 1, Deck: Floating.



Bent 2, Back, Girder 2: Cracking.



Span 1, Girder 4 & 5: Active corrosion with section loss in bottom flange. Approximately 6' back of Bent 2.



Span 1: Typical active corrosion with section loss on top flanges.





Typical bearings.



Typical bearings.



Bent 2, Ahead, Girder 4: Spalling with exposed reinforcing steel with section loss.



Spalling on each side of exposed reinforcing steel.





Span 2: Typical active corrosion with section loss on top flanges.



Typical active corrosion with flaking rust in cantilever brackets.



Span 4: Typical active corrosion with section loss on top flanges.



Span 4, Girder 1, 10' Back from Bent 11: 1/4" section loss to bottom flange.





Bent 4, Back, Girder 3: Spalling with exposed reinforcing steel with section loss.



Typical exposed reinforcing steel with section loss in truss spans.



Bent 8, Girder 3, Right: 7/16" section loss, 3" long X 1" tall.



Bent 13, Span 13, Girder 3: Hole rusted through web, 16" long X 3" tall.





Minor active corrosion in top chord.



Minor active corrosion in bottom chord.



Truss Span 1, PP 1: Active corrosion with flaking rust.



Pier 1, Bearings: Minor active corrosion.





10/25/2022

Typical minor active corrosion on top flanges.



10/25/2022

Pier 2, Back: Spalling with exposed reinforcing steel with section loss.



10/25/2022

Pier 2, Ahead: Spalling with exposed reinforcing steel with section loss.



10/25/2022

Pier 3, Back: Cracking with efflorescence.





10/25/2022

Pier 3, Ahead: Spalling with exposed reinforcing steel with section loss.



10/25/2022

Span 1, Left: Spalling.



10/25/2022

Typical active corrosion with flaking rust at joints.



10/25/2022

Bent 2: Spalling with exposed reinforcing steel.





Span 1: Spalling.



Bent 2: Spalling.



Typical cracking.



Span 8, Right: Spalling with exposed reinforcing steel with section loss.





Bent 10, Span 10: Spalling with exposed reinforcing steel with section loss.



Span 13: Spalling with exposed reinforcing steel with section loss.



Bent 2: Spalling.



Bent 3: Repair.





Bent 4, Span 3: Repair.



Span 4: Repair.



Bent 5, Span 4: Failed repair.



Bent 9, Span 9: Repair.





Span 9, Right: Spalling.



Bent 10, Span 10: Repair.



Bent 11, Span 11: Failing repair.



Bent 11, Span 11: Spalling.





Bent 12, Span 11: Repair failing.



Bent 16: Repair.



Typical cracking.



Typical abrasion.





Bent 16, Joint: Loss of adhesion.



Truss Span 1: Spalling with exposed reinforcing steel with section loss.



Truss Span 2: Spalling with exposed reinforcing steel with section loss.



Truss Span 3: Spalling with exposed reinforcing steel with section loss.





10/25/2022

Span 17: Spalling with exposed reinforcing steel with section loss.



10/25/2022

Truss Span 2: Spalling with asphalt repairs.



10/25/2022

Pier 4, Joint: Loss of adhesion.



10/25/2022

Typical exposed reinforcing steel with section loss in multi-girder spans.





10/25/2022

Typical spalling with exposed reinforcing steel with section loss



10/25/2022

Bent 2, Column 2: Cracking.



10/25/2022

Typical abrasion.



10/25/2022

Bent 3, Column 2: Spalling with exposed reinforcing steel with section loss.





10/25/2022

Bent 4, Column 2: Spalling with exposed reinforcing steel with section loss.



10/25/2022

Bent 5, Columns 1 & 2: Spalling with exposed reinforcing steel with section loss.



10/25/2022

Bent 7, Columns 1 & 2: Spalling with exposed reinforcing steel with section loss.



10/25/2022

Bent 14, Column 1: Spalling with exposed reinforcing steel with section loss.





Bent 11: Spalling with exposed reinforcing steel with section loss.



Bent 14: Spalling with exposed reinforcing steel with section loss.



Bent 15, Spalling with exposed reinforcing steel with section loss.



Bent 14: Delam.





Pier 4, Back: Spalling with exposed reinforcing steel with section loss.



Pier 1, Ahead: Spalling with exposed reinforcing steel with section loss.



Pier 1, Ahead: Spalling.



Pier 4, Back: Spalling with exposed reinforcing steel with section loss.



### Maintenance Needs

**Date Reported:** 10/29/2020

**Priority:** A - Safety deficiency; requires prompt action

**Status:** Repair Documented

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

**Component:** Miscellaneous

---

### Deficiency Description

10/28/2020 - JRT & AMJ

The sidewalk along the approach spans have numerous areas of soft deteriorated concrete with spalling and exposed reinforcing steel (The reinforcing steel has active corrosion with section loss) that is visible from the under-surface.

### Remarks

APW & KVV - 10/25/22

Side Walk is closed at this inspection.



Typical undersurface of the sidewalk

### Maintenance Needs

**Date Reported:** 10/13/2021

**Priority:** A - Safety deficiency; requires prompt action

**Status:** Monitor

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

**Component:** Deck

---

### Deficiency Description

Deck:

Bent 5 Right has a pothole forming in the driving surface that has progressed to 2x4 with broken reinforcing steel in the undersurface.

### Remarks

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Bent 5 Right Undersurface





**Maintenance Needs**

**Date Reported:** 10/13/2021

**Priority:** B - Pressing

**Type of Work:** Other Posting Problem

**Status:** Monitor

**Component:** Element

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**Deficiency Description**

Floor Beams

Floor beam 0 has 1/8" section loss to top flange.

Span 16 Floor Beam 5 at Stinger 7 right side has knife edge section loss.

**Remarks**

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Span 16 Floor beam 5 right side knife edge section



Span 16 Floor beam 5 Knife edge section loos.



### Maintenance Needs

**Date Reported:** 07/26/2012

**Priority:** C - Important

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Monitor

**Component:**

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### Deficiency Description

Truss components

Paint system has failed on all three main spans (truss). Heavy rust on inside gussett plates and bottom chords. Debris built up on lower chords. Some rivet heads and anchor bolts are rusty with sec. loss . Top flange of FB's @ intersection with concrete deck Lt & Rt. have dirt & debris built up with pack rust and section loss, typical of most all FB's all spans.

### Remarks

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04/29/2020

PP 5 left truss 3 showing paint condition. Typical of all truss components.





**Asset #02466**(Routine, NSTM)  
**US 79-B S-4 LM 2.2 over OUACHITA RIVER**

**Location: 1.08 MI NE JCT SH 7**

**Team Lead:** Anthony Wood **Inspection Date:** 10/03/2022

#### **Maintenance Needs**

**Date Reported:** 07/26/2012

**Priority:** C - Important

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Monitor

**Component:**

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#### **Deficiency Description**

Approach spans

Bent 2 cap large crack , Bent 5 cap cracked. Bents 11 & 15 caps, large spalls with exposed steel with sec. loss. Bent 14 cap cracking and delamn. Bent 7 columns 1-2 large spalls with exposed steel. Bent 14 column 1 large horizontal crack.

#### **Remarks**

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**Asset #02466**(Routine, NSTM)

**US 79-B S-4 LM 2.2 over OUACHITA RIVER**

**Location: 1.08 MI NE JCT SH 7**

**Team Lead:** Anthony Wood **Inspection Date:** 10/03/2022

### Maintenance Needs

**Date Reported:** 12/04/2014

**Priority:** C - Important

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Repair Documented

**Component:**

---

### Deficiency Description

Span 4 Lt. and Rt. @ Joint, spall on ahd. side, spall is in outside wheel paths of both lanes. Span 5 back, @ joint, 6' spall with exposed steel on Lt. side. Joint @ Spans 8 & 9, there is a 5' spall on Lt. side of span 9 back with exposed steel. Joint @ Spans 9 & 10, @ back of span 10, 6' spall in both travel lanes with exposed steel. Joint @ Spans 10 & 11 @ 11 back, 1' spall with a crack going Lt. to outside edge. Abutment 1 there is roadway settlement for entire width of roadway.

### Remarks

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### Maintenance Needs

**Date Reported:** 01/16/2019

**Priority:** C - Important

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Assigned

**Component:**

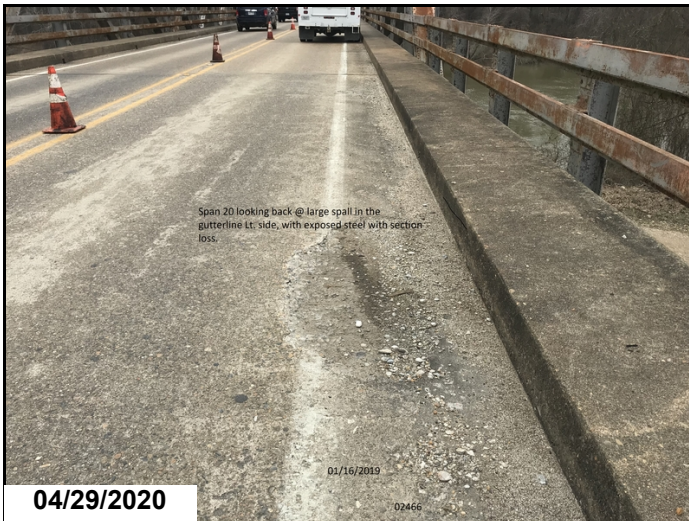
---

### Deficiency Description

Span 20 looking back @ large spall with exposed steel, between white line and gutter line.

### Remarks

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Span 20 looking back @ large spall with exposed steel,  
between white line and gutter line.

## Maintenance Needs

Date Reported: 10/29/2020

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Element

## Deficiency Description

10/28/2020 - JRT & AMJ

- Bent 1(ahead) girders 1-2-3 major sec. loss to bottom flanges.
- Bent 2 (back) G's 1-5 moderate to major sec. loss to bottom flanges. Bent 2 (ahead) G 1 knife edge bottom flange. Bent 3 (ahead & back) all bottom flanges mod. to maj. sec. loss @ bearing areas.
- Bent 3 girder 2 has approximately 1/2" section loss bottom flange
- Bent 4 (back) all bottom flanges sec. loss @ bearing area. Bent 4 (ahead) G's 2,4,5 sec. loss to bottom flanges @ bearing area. Bent 4 (AHD) has approximately 1/4" section loss
- Bent 5 (ahead & back) small holes in webs with sec. loss to bottom flanges. Bent 6 (ahead & back) all bottom flanges have sec. loss. G3
- Bent 6 (ahead) bottom flange is knife edged.
- Bent 7 (back) G's 3-4 knife edged bottom flanges. Bent 7 (ahead) & Bent 8 (ahead & back) all girders sec. loss @ bearing area G's 1 & 5 have small holes in the web.
- Bent 9 (ahead & back) all girders sec. loss @ bearing area.
- Bent 10 (ahead & back) all girders sec loss @ bearing area.
- Bent 13 (Span 13) Girder 3 has a hole rusted through the t-splice repair.
- Bent 19 (ahead) G's 2-3-4 sec. loss to bottom flanges @ bearing area. G 2 has a hole in the web. All bearings & plates, bents 19-20 rusty with sec. loss.
- Bt. 20 bearing and plate @ G4 has pack rust and section loss to masonry plate and bearing. Bt. 20 G's 1 - 3 also have pack rust and section loss to masonry plates and bearings.
- Bent 21 section loss along each of the girder ends that range from 1/8" to 1/4"

## Remarks



10/19/2020

Pier 4 (AHD) has approximately 1/4" section loss



10/19/2020

Bent 3 girder 2 1/2" section loss bottom flange





Typical corrosion along the webs in various locations



Span 13 bent 13 Girder 3 has a hole rusted through the t-splice repair.



Typical corrosion along the beam ends



Typical corrosion



**Asset #02466**(Routine, NSTM)  
**US 79-B S-4 LM 2.2 over OUACHITA RIVER**

**Location: 1.08 MI NE JCT SH 7**

**Team Lead:** Anthony Wood **Inspection Date:** 10/03/2022

#### **Maintenance Needs**

**Date Reported:** 03/17/2022

**Priority:** C - Important

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

**Status:** Monitor

**Component:** Element

---

#### **Deficiency Description**

It is recommended to install engineered scour countermeasures to prevent additional scour and undermining of the Pier 3 seal. A follow-up dive inspection, is recommended if a high-water event is experienced before countermeasures are installed.

#### **Remarks**

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### Maintenance Needs

**Date Reported:** 07/26/2012

**Priority:** D- Routine

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Monitor

**Component:**

---

### Deficiency Description

Lateral bracing truss 3 has collision damage over the service road. Joint armor bent 16 is loose and popping. Bt 17 joint armor has been removed and epoxy was poured back to fill up gap Lt lane, but Rt. lane is missing and there is a large gap on the approach side of span 16.

### Remarks

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Collision damage

#### Maintenance Needs

**Date Reported:** 11/19/2013

**Priority:** D- Routine

**Status:** Monitor

**Type of Work:** (Inactive) (Inactive) 9 - None

**Component:**

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#### Deficiency Description

Pier #1 ahead side has several spalls in face of pier wall with exposed vertical and horizontal rebar with some minor section loss. 2015 section loss up to 100% of some outer bands of rebar.

#### Remarks

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04/29/2020

02466 Spalls with exposed steel. Pier wall 1 ahead side.



### Maintenance Needs

**Date Reported:** 01/16/2019

**Priority:** D- Routine

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Monitor

**Component:**

---

### Deficiency Description

Span 19 Lt. side there are some trees growing up beside the bridge, making it hard to snoop the bridge.

### Remarks

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Span 19 Lt. side there are some trees growing up beside the bridge, making it hard to snoop the bridge.



Asset #02466(Routine, NSTM)

US 79-B S-4 LM 2.2 over OUACHITA RIVER

Location: 1.08 MI NE JCT SH 7

Team Lead: Anthony Wood Inspection Date: 10/03/2022

## Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
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 - Hydro and LMC Advised	
A-63 - Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	

**A-54 - Sealable Deck Cracks**

**A-55 - Deck Washing Needed**

**A-56 - Joint Cleaning/Flushing Needed**





**Asset #02466**(Routine, NSTM)  
**US 79-B S-4 LM 2.2 over OUACHITA RIVER**

**Location: 1.08 MI NE JCT SH 7**

**Team Lead: Anthony Wood Inspection Date: 10/03/2022**

**A-57 - Girder End and Bearing Painting Needed**

**A-58 - Cap Cleaning/Flushing Needed**

**A-59 - Joint Repair Needed**

**A-60 - Full Girder Painting Needed**

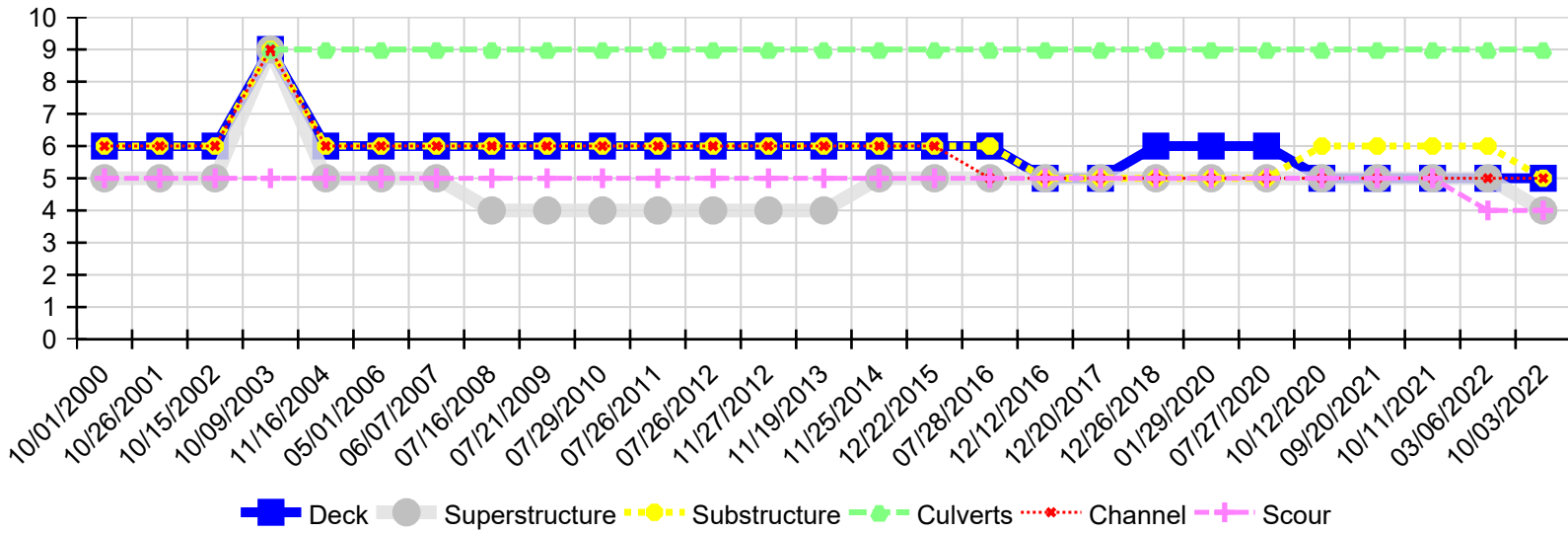
**A-61 - Polymer Overlay Advised**

**A-62 - Hydro and LMC Advised**

**A-63 - Missing/Incorrect Log Mile Signage**

**A-64 - Vegetation Removal Requested**

### Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
10/03/2022	5	4	5	9	5	4
03/06/2022	5	5	6	9	5	4
10/11/2021	5	5	6	9	5	5
09/20/2021	5	5	6	9	5	5
10/12/2020	5	5	6	9	5	5
07/27/2020	6	5	5	9	5	5
01/29/2020	6	5	5	9	5	5
01/29/2020	6	5	5	9	5	5
12/26/2018	6	5	5	9	5	5
12/20/2017	5	5	5	9	5	5
12/12/2016	5	5	5	9	5	5
07/28/2016	6	5	6	9	5	5
12/22/2015	6	5	6	9	6	5
11/25/2014	6	5	6	9	6	5
11/19/2013	6	4	6	9	6	5
11/27/2012	6	4	6	9	6	5
07/26/2012	6	4	6	9	6	5
07/26/2011	6	4	6	9	6	5
07/29/2010	6	4	6	9	6	5
07/21/2009	6	4	6	9	6	5
07/16/2008	6	4	6	9	6	5
06/07/2007	6	5	6	9	6	5
05/01/2006	6	5	6	9	6	5
11/16/2004	6	5	6	9	6	5
10/09/2003	9	9	9	9	9	5
10/15/2002	6	5	6	N	6	5
10/26/2001	6	5	6	N	6	5





**Asset #02466**(Routine, NSTM)

**US 79-B S-4 LM 2.2 over OUACHITA RIVER**

**Location: 1.08 MI NE JCT SH 7**

**Team Lead:** Anthony Wood **Inspection Date:** 10/03/2022

Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
10/01/2000	6	5	6	N	6	5



**Asset #02466**(Routine, NSTM)  
**US 79-B S-4 LM 2.2 over OUACHITA RIVER**

**Location: 1.08 MI NE JCT SH 7**

**Team Lead: Anthony Wood Inspection Date: 10/03/2022**

**NSTM Inspection Report and Procedure**  
**Bridge No. 02466 1.08 MI NE JCT SH 7**

**A-128 - Description of Structure**

**A-129 - Range Of Dates, Personnel and Responsibilities**

**A-130 - Access Equipment**

**B.IR.02 - Fatigue Prone Details**

**B.C.14 - NSTM Inspection Condition**

**B.IR.04 - Complex Feature**





**Asset #02466**(Routine, NSTM)  
**US 79-B S-4 LM 2.2 over OUACHITA RIVER**

**Location: 1.08 MI NE JCT SH 7**

**Team Lead:** Anthony Wood **Inspection Date:** 10/03/2022

## Reference Photos:



Asset #02466(Routine, NSTM)

US 79-B S-4 LM 2.2 over OUACHITA RIVER

Location: 1.08 MI NE JCT SH 7

Team Lead: Anthony Wood Inspection Date: 10/03/2022

Bridge #02466 NSTM Member Inspection Log

Member or Element (NSTM)	Access Equipment	Condition Rating	General Condition Notes
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NSTM specific defect notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4





**Asset #02466**(Routine, NSTM)  
**US 79-B S-4 LM 2.2 over OUACHITA RIVER**

**Location: 1.08 MI NE JCT SH 7**

**Team Lead: Anthony Wood Inspection Date: 10/03/2022**

### Signatures

Signature

Printed Name

Date

*Anthony Wood*

(Team Lead) Anthony Wood

10/27/2022

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Bridge #02466 (NSTM)  
US 79B - Ouachita County Over Ouachita River - District 7  
Location: 1.08 MI NE JCT SH 7  
Team Lead: Anthony Wood  
Inspection Date: 10/25/2022

## **NON-REDUNDANT STEEL TENSION MEMBER INSPECTION PROCEDURE**

### **ARKANSAS RIVER BRIDGE NO. 02466**

#### **AT CAMDEN, AR**

The main spans 16 through 18 on the Ouachita River consist of three Pony truss units.  
Each is 126' long.

Fracture Critical tension members are designated in red on the FC Procedure drawing.  
Tension members consist of the lower chords, certain vertical and diagonal members  
and floor beams.

Tension members are inspected hands on using an Under Bridge Inspection Unit.

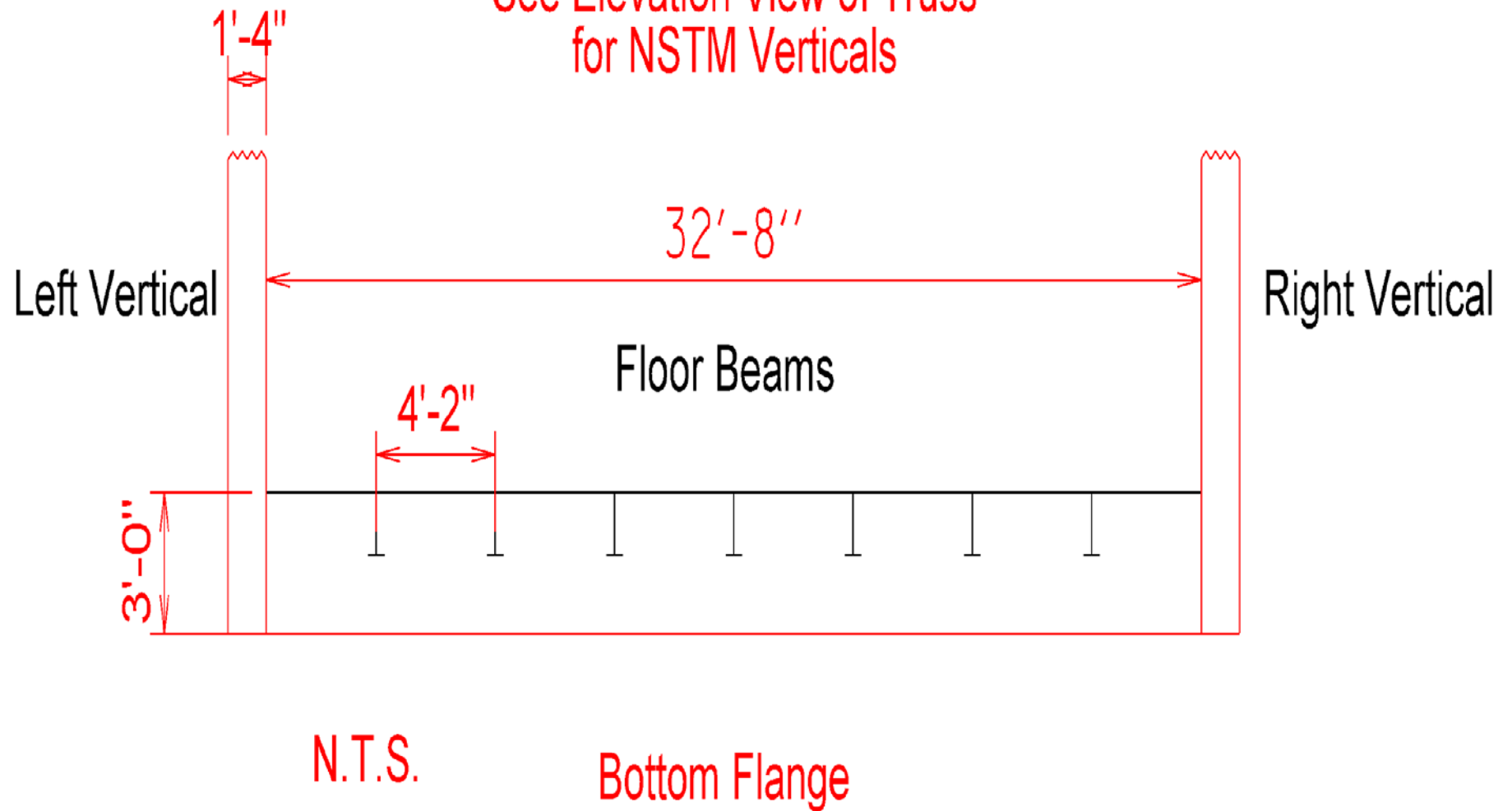


## NSTM REFERENCE PHOTO



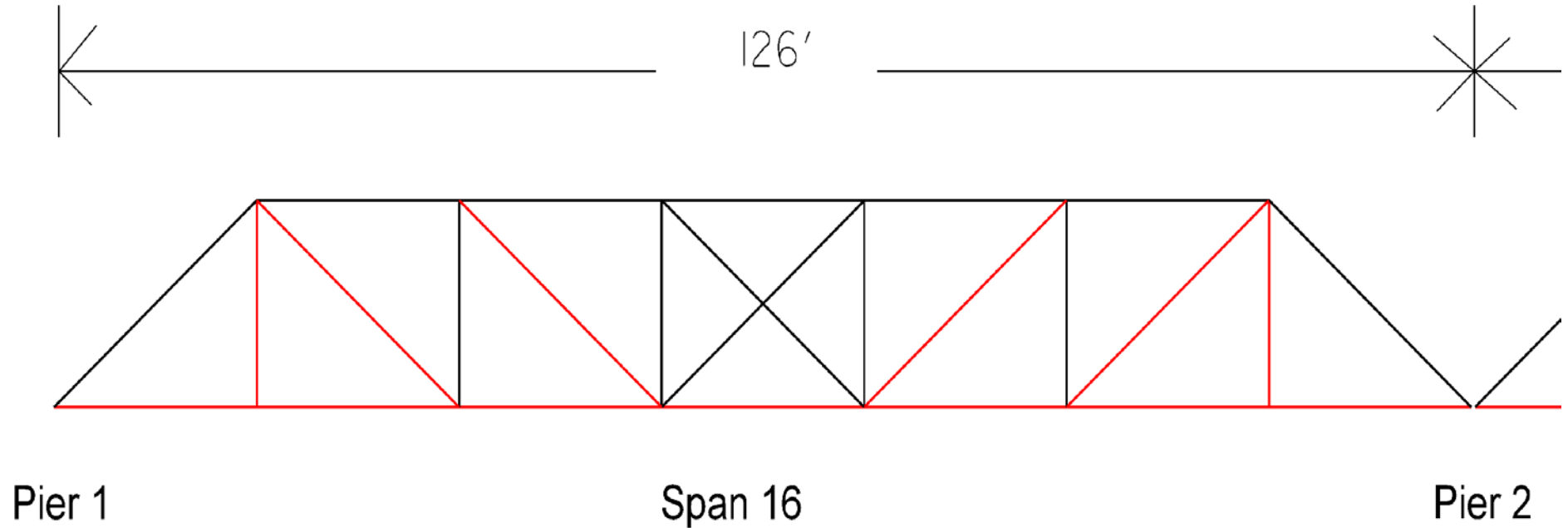
# NSTM DRAWING(S)

See Elevation View of Truss  
for NSTM Verticals



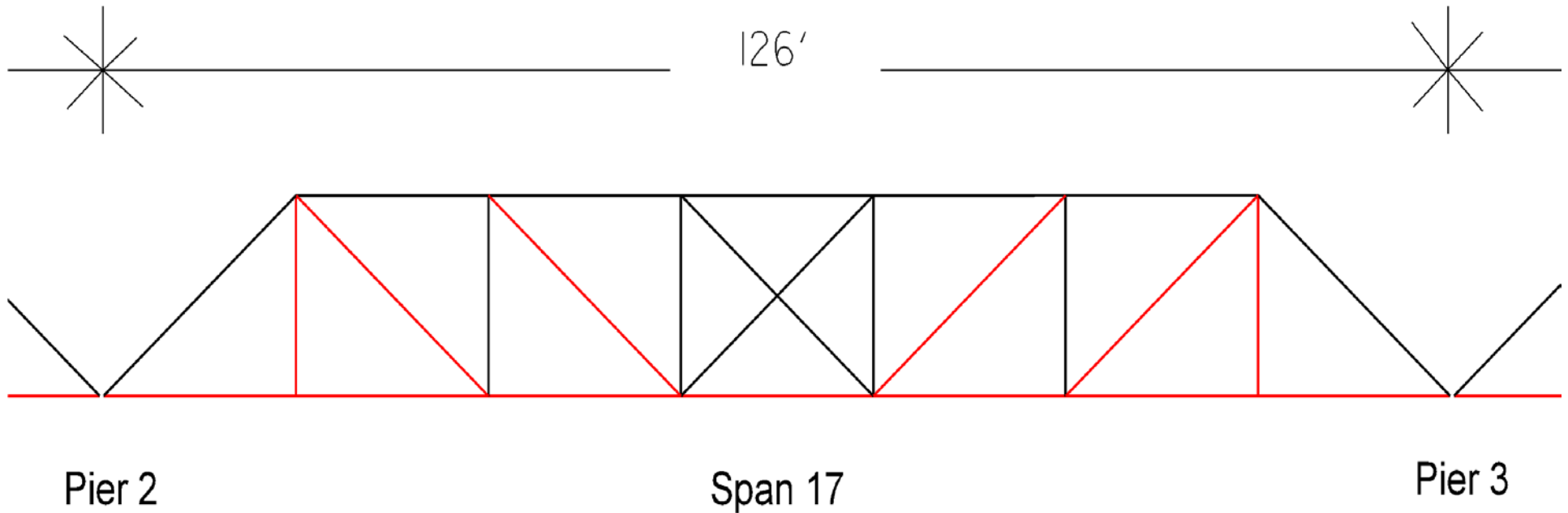


Bridge #02466  
NSTM Plans



**NSTM are depicted in Red  
N.T.S.**

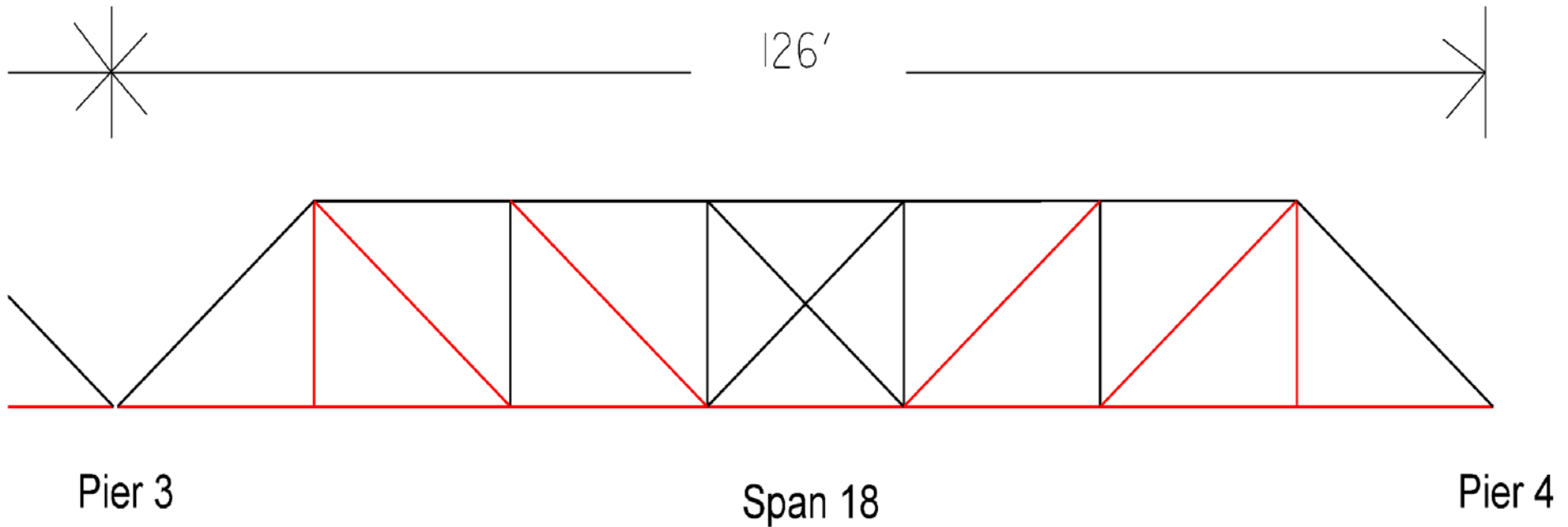
Bridge #02466  
NSTM Plans



**NSTM are depicted in Red  
N.T.S.**



Bridge #02466  
NSTM Plans



**NSTM are depicted in Red  
N.T.S.**

## NON-REDUNDANT STEEL TENSION MEMBER INSPECTION

### UPPER CHORD

CONDITION: 5

### NOTES:

No visible cracks.

Isolated areas of 1/8" pack rust at the upper gusset plate connection.

Paint system is failing with surface rust and very limited effectiveness.



## BOTTOM CHORD

CONDITION: 5

### NOTES:

No visible cracks.

Minor to moderate active corrosion with flaking rust in the lower portions of webs.

Paint system is failing with surface rust.

## VERTICALS & DIAGONALS

CONDITION: 5

### NOTES:

No visible cracks.

Isolated areas of 1/8" pack rust at the upper/lower gusset plate connections.

Paint system is failing.



## FLOOR BEAMS

CONDITION: 4

### NOTES:

No cracks.

Floor beams have active corrosion with knife edge section loss in the top flanges adjacent to deck.

Floor beams have active corrosion with up to 1/4" section loss from deck edges inward up to 8' in top flanges.

Floor beams have active corrosion with up to 1/8" section loss in bottom flanges and webs at joint locations.

Paint system in fair condition with the exception of joint locations.