Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Bridge 05769 Inspection Report



Latitude:36.38175, Longitude:-92.24936

Route:101 Section:01 Log:9.138

Arnold Road ID:3x101x1xA, Arnold Log mile:9.045

District 09, 5 - Baxter County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

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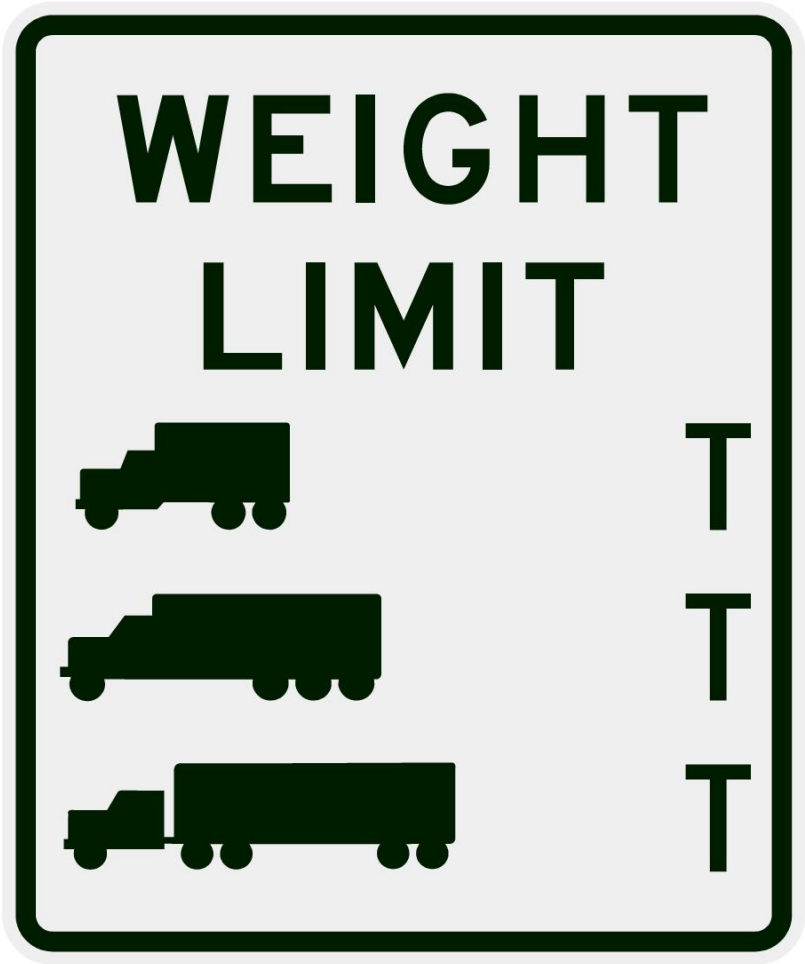
Bridge Posting Information

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

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

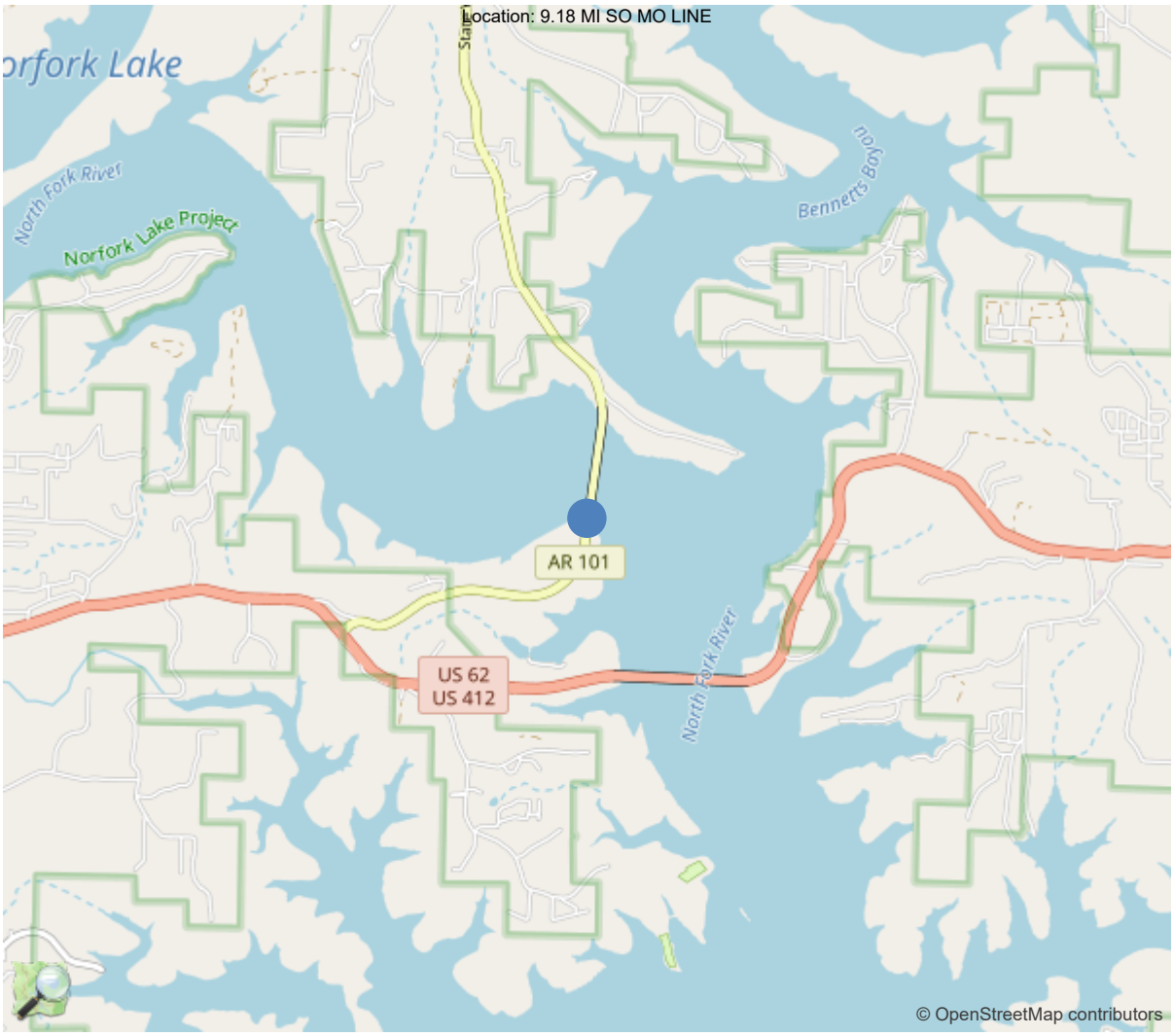
Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	30		
Code 9 (31 Tons)	36		
Code 5 (40 Tons)	47		

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

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36.38175, -92.24936

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National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	05769
(5) Inventory Route	1
(2) Highway Agency District	09 - District 09
(3) County Code	5 - Baxter County
(4) Place Code	31270
(6) Features Intersected	Norfork Lake
(7) Facility Carried	State Highway 101
(9) Location	9.18 MI SO MO LINE
(11) Mile Point	9.138 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	36.381752
(17) Longitude	-92.249356
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	43
Material	4 - Steel continuous
Type	3 - Girder and floorbeam system
(44) Approach Structure Type	43
Material	4 - Steel continuous
Type	3 - Girder and floorbeam system
(45) No. of Spans in Main Unit	12
(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	2
Under	0
(29) Average Daily Traffic	2600
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	35 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	310 ft
(49) Structure Length	2880 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	32 ft
(52) Deck Width Out to Out	35 ft
(32) Approach Roadway Width (W/Shoulders)	36.1 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	33.5 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	0 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	1 - Navigation control on wate
(111) Pier Protection	5 - None present but re-evalua
(39) Navigation Vertical Clearance	46.9 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	252 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
(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	0 - The inventory route is not
(20) Toll	3 - On free road. The structu
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	4 - Historical significance is
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	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	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(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	2055
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			12/05/2024
(91) Frequency			24
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	Yes	12	12/05/2024
B: Underwater Inspection	Yes	60	06/07/2023
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.

Inspection Notes

General Observation

Aspen A-75 was used to access the structure. There is an installed cat walk the length of the bridge through the center of the floor beams. The cat walk has been cut short to hinder unauthorized access. The UBIV was utilized to access the cat walk. A geological hammer and pit gauge was used to measure section loss. Baxter county yard provided traffic control. Graffiti is widespread, care was taken to avoid taking photos with offensive language and symbols, some photos have areas censored using Paint 3D.

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58 - Deck (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Overall, the Deck is in Satisfactory condition with widespread spalling and delamination across the driving surface and cracking with efflorescence in the overhangs. Moderate spalling with exposed rebar along the structure at the low edge of the super elevation curve.

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59 - Superstructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Overall, the Superstructure is in Satisfactory condition with widespread minor corrosion throughout the structure and some moderate corrosion along top and bottom flanges and splice locations.

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60 - Substructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Overall, the Substructure is in Satisfactory condition with widespread moderate cracking in all columns many having epoxy injection repairs that are failing and widespread minor cracking in the pier cap. There is an isolated large spall with exposed reinforcing steel found at pier 2 column 1 that is up to the bearing with no loss of bearing area.

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62 - Culverts (N - Not applicable. Used if structure is not a culvert.)

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61 - Channel/Channel Protection (8 - Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition.)

Overall, the Channel/Channel Protection is in Very Good condition with rocky embankments and still water conditions.

10/11/2021 Sonar was performed, see sonar files for details.

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71 - Waterway Adequacy (8 - Bridge deck above roadway approaches. Slight chance of overtopping roadway approaches.)

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72 - Approach Roadway Alignment (8 - Equal to present desirable criteria)

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113 - Scour Critical Bridges (8 - Bridge foundations determined to be stable for the assessed or calculated scour condition. Scour is determined to be above top of footing (Example A) by assessment (i.e., bridge foundations are on rock formations that have been determined to resist scour within the service life of the bridge4), by calculation or by installation of properly designed countermeasures (see HEC 23).)

A-51 - Inspection Direction (2 - S to N)

The inspection was conducted per the plans which has this structure laid out south to north. The log mile marker is on the north end of the structure opposite its inspection direction.

A-15 - Late Reason (N/A)

A-45 - Bats Present (0 - No)

A-108 - Load Rating Requested

A-119 - Scour Assessment Request

A-B.C.11 - B.C.11 Scour Condition Rating (New NBIS) (8 - Insignificant scour.)

Overall, the Scour Condition Rating is in Very Good condition with rocky embankments and still water conditions.

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National Bridge Element Quantities and Notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	100800	91853	8338	609	0
1080	Delamination/Spall/Patched Area	SF	7510	0	7056	454	0
1090	Exposed Rebar	SF	55	0	0	55	0
1120	Efflorescence/Rust Staining	SF	996	0	896	100	0
1130	Cracking (RC and Other)	SF	386	0	386	0	0

(12) Right and left overhangs: Cracking with efflorescence typical throughout structure. 100SF CS3, 896SF CS2.
Driving Surface: Spalling and delamination is typical across the deck. 7056SF CS2, 454SF CS3.
Deck: Spalling, sound & unsound patches areas, & sealed transverse cracking typical throughout the structure.
Span 1, Right overhang: 3SF of CS3 spalling.
Span 1, Overhangs: 30 transverse cracking with efflorescence.
Span 1, Left lane: 4SF of CS3 spalling in wheel path.
Span 1: Typical patched areas.
Span 1: 35sf of CS3 spalling/unsound patches.
Span 2, both: 6SF CS3 spalling.
Span 3, Left overhang: 9SF CS3 spalling & 3SF of CS2 delam.
Span 3: 2SF of CS3 unsound patch.
Span 4, bay 2: Corrosion in the stay in place forms.
Span 7. 5SF CS2 delam.
Span 8, Left overhang: 8SF of CS3 spalling.
Span 9: patched areas.
Span 10, Left lane: 5SF of CS3 spalling in wheel paths.
Span 10, Right lane: Spalling with 1SF of CS3 exposed reinforcing steel in wheel path.
Span 10, Left overhang, Adjacent to second splice: 20SF of spalling with CS3 exposed reinforcing steel & 1lf of CS3 efflorescence.
Span 11: Spalling, unsound & sound patched areas.
Span 11: Spalling & unsound patched areas.
Span 11, Left Lane: Spalling with 1SF of CS3 exposed reinforcing steel in wheel path.
Span 11, left overhang, between first & second splice: Spalling with 35sf of CS3 exposed reinforcing steel & 15sf of CS3 spalling.
Span 11, Left overhang, adjacent to first splice: 14LF of spalling with CS3 exposed reinforcing steel & 8sf of CS3 spalling.
Span 11. 4SF spalls right overhang.
Span 12, Right lane: Spalling with 2SF of CS3 exposed reinforcing steel in wheel path.
Span 12, Right lane: Spalling with 1SF of CS3 exposed reinforcing steel in wheel path.
Span 12, Left overhang from second splice to north abutment: 12 SF of CS3 spalls.

107	Steel Open Girder/Beam	LF	5760	5380	295	85	0
1000	Corrosion	LF	380	0	295	85	0
515	Steel Protective Coating	SF	187200	182060	1340	3800	0
3440	Effectiveness (Steel Protective Coatings)	SF	5140	0	1340	3800	0

(107) Overall, the steel girders were found to be in satisfactory condition. Corrosion is common throughout with 380' of corrosion documented over the entirety of the steel girders. Corrosion amounted to 295'(CS2) and 85'(CS3) at the time of this inspection. Corrosion is primarily located in the bottom flange throughout the structure (CS2). Corrosion can be found at the splice connections and areas of moisture exposure such as adjacent to joints (CS3).
Span 1, Girder 1, First splice: Active corrosion with laminated rust build up in the bottom web juncture. 3LF CS3.
Span 1, Girder 1: Active corrosion with flaking rust along Bottom Flange. 35LF CS2.
Span 1, South Abutment, Girders 1 & 2: CS2 Active corrosion with minor flaking rust along Bottom Flange. 8LF CS2.
Span 2, Girder 1, Between first & second splice: Flaking rust along the Top Flange. 5LF CS2.
Span 2, Girder 1, Between first & second splice: Flaking rust along the Bottom Flange. 25LF CS2.

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Span 2, Girder 1, Second splice: Typical corrosion between Bottom Flanges at splice connection. Span 3, Girder 1, Behind first splice: 3LF of active corrosion with CS2 flaking rust along Top Flange. 3LF CS2. Span 3, Girder 1, Third splice to Pier 3: Active corrosion with CS2 flaking rust along Bottom Flange. 3LF CS2. Span 4, Girder 1, Fourth splice: Flaking rust along Bottom Flange on ahead side & flaking rust on back side. 8LF CS3, 10LF CS2. Span 4, Girder 1, Fourth splice: Active corrosion with laminated rust build up in bottom web juncture for the length of splice plate. 3LF CS3. Span 4, Girder 1, from Pier 3 to 30' ahead of first splice: Active corrosion with flaking rust along Bottom flange. 30LF CS2. Span 4, Girder 2, Behind second splice: Active corrosion with flaking rust along Top Flange. 4LF CS3. Span 4, Girder 2, first splice: Active corrosion with laminated rust build up along bottom web juncture. Fourth splice: 3LF CS3. Span 4, Girder 2, From Pier 3 to first splice: Corrosion. 20LF CS2. Span 5, Girder 2, First Splice: Active corrosion with laminated rust build up along bottom web juncture with 1/8" section loss. Second splice: 3LF CS3. Span 5, Girder 2, Third splice: Active corrosion with laminated rust build up along bottom web juncture for the length of splice. 3LF CS3. Span 5, Girders 1 & 2: Scattered locations of active corrosion with flaking rust along the Bottom Flange. CS2 100LF. Span 6, Girder 1, First splice: Active corrosion with laminated rust build up along bottom web juncture. 3LF CS3. Span 6, Girder 1, Second splice: Active corrosion with laminated rust build up along the bottom web juncture. 3LF CS3. Span 6, Girder 1: Flaking rust along Bottom Flange ahead of pin & hanger assembly. 2LF CS3, 2LF CS2. Span 6, Girder 2: Flaking rust along Bottom Flange ahead of pin & hanger assembly. 4LF CS2. Span 6, Girder 2: Laminar tears from construction. Ahead of second splice. Span 7, Girder 2, First splice: Flaking rust along Bottom Flange on back side. 4LF CS2. Span 7, Girder 2, fourth splice: Laminated rust build up along bottom web juncture. 1LF CS3. Span 8, Girder 1, Between first & second splice: Flaking rust along Top Flange adjacent to spalled locations. 4LF CS3. Span 8, Girder 1, adjacent to Floor beam behind Pier 8: missing bolts, holes not drilled in web of Girder. Span 8, Girder 2, first splice: Flaking rust along Bottom Flange of splice & in web juncture. 4LF CS3. Span 9, Girder 2, Ahead of first splice: 3LF of flaking rust along Top Flange. Girder 1: 6LF behind first splice. 9LF CS3. Span 9, Girder 2, third splice: Active corrosion with laminated rust build up and 1/8" section loss at the bottom web juncture. 1LF CS3. Span 9, Girders 1 & 2, Backside of pin & hanger assembly: Active corrosion with flaking rust along the Bottom Flange on both girders. 10LF CS3. Span 10, Girder 1, Between first & second splice: Active corrosion with minor flaking rust in isolated locations along the Top Flange. 12LF CS2. Span 10, Girder 1, Second splice: Active corrosion with CS3 laminated rust build up along the bottom web juncture for the full length of splice plate. 3LF CS3. Span 10, Girder 2, Second splice: Active corrosion with CS3 laminated rust build up along the bottom web juncture for the full length of splice plate. 2LF CS3. Span 11, Girder 1, Behind second splice: Active corrosion with flaking rust along Bottom Flange. 8LF CS2. (515-107) Overall the weathering steel coating is in fair shape. Areas of poor patina are common and the coating has lost effectiveness at all areas of corrosion.							
113	Steel Stringer	LF	8640	8621	19	0	0
1000	Corrosion	LF	19	0	19	0	0
515	Steel Protective Coating	SF	42682	42640	42	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	42	0	42	0	0
(113) Span 6, Floor beams 1 & 2, Stringers Active corrosion with CS2 corrosion. 1.5 per. Span 9, stringer 1, back: Corrosion typical at the ends of stringers at the finger joints.							
152	Steel Floor Beam	LF	3584	3504	14	66	0
1000	Corrosion	LF	80	0	14	66	0
515	Steel Protective Coating	SF	24417	23441	320	656	0
3440	Effectiveness (Steel Protective Coatings)	SF	976	0	320	656	0

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(152) Overall, the floor beams were found to be in satisfactory condition. Span 6, Floor Beam 1: Has corrosion full length of floor beam due to joint leakage. 28LF CS3. Span 6, Floor beam 2: Corrosion at the girder connections traveling toward center for 6' on each end. 12LF CS3. Span 6, Floor beams 1 & 2: Active corrosion with CS2 flaking rust, full length besides what is noted in CS3. Span 8, Floorbeam behind Pier 8: Missing bolts, holes not drilled into the floor beam. Span 9, Floor Beam 9: Back, Pin and Hanger: Has corrosion full length of floor beam due to joint leakage. 14LF CS3, 14LF CS2. Span 9, Floor beam 9: Backside of joint: half CS3, other in CS2. Span 9, Floor beam 10: Corrosion at the girder connections traveling toward center for 6' on each end. 12LF CS3.							
161	Steel Pin - Pin and Hanger Assembly	EA	4	0	4	0	0
1000	Corrosion	EA	4	0	4	0	0
515	Steel Protective Coating	SF	117	0	117	0	0
3430	Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings)	SF	117	0	117	0	0
(161) The pin and hanger assemblies were in good overall condition at this time. Minor corrosion is present due to exposure of open finger joints (CS2), but all members were in otherwise sound condition. Span 9, Girder 2, Pin & hanger assembly: Pins read shorter than others on structure, tested on both sides with UT machine & no defects on either side. (515-161) All pin and hangers bars have active corrosion with a granular texture.							
205	Reinforced Concrete Column	EA	22	0	0	22	0
1090	Exposed Rebar	EA	2	0	0	2	0
1120	Efflorescence/Rust Staining	EA	1	0	0	1	0
1130	Cracking (RC and Other)	EA	19	0	0	19	0
(205) Pier 2, Column 1, Back: Spalling with CS3 exposed reinforcing steel & delamination at the bearing area. No loss of bearing area. 1EA CS3. Pier 2, Column 2: Shallow spalling with CS3 exposed reinforcing steel. 1EA CS3. Pier 9, Column 1: Epoxy injection Crack repairs are typical throughout the structure. 9EA CS3. Pier 11, Column 1: Typical vertical cracking. 10EA CS3. Pier 11, Column 2: Typical vertical cracking with CS3 efflorescence build up. 1EA CS3.							
210	Reinforced Concrete Pier Wall	LF	180	180	0	0	0
215	Reinforced Concrete Abutment	LF	200	188	12	0	0
1120	Efflorescence/Rust Staining	LF	4	0	4	0	0
1130	Cracking (RC and Other)	LF	8	0	8	0	0
(215) South Abutment: Vertical cracking with efflorescence. 4LF CS2. North abutment, Left wing wall: Diagonal cracking. 3LF CS2. North Abutment: Vertical cracking. 5LF CS2							
234	Reinforced Concrete Pier Cap	LF	308	31	277	0	0
1130	Cracking (RC and Other)	LF	277	0	277	0	0

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(234) Horizontal cracking is found at each pier and some map cracking. 277LF CS2.							
303	Assembly Joint with Seal	LF	128	96	32	0	0
2350	Debris Impaction	LF	32	0	32	0	0
(303) Span 6, Joint: minor debris impaction half of length. 32LF CS2.							
311	Movable Bearing	EA	6	2	2	2	0
1000	Corrosion	EA	2	0	2	0	0
1020	Connection	EA	2	0	0	2	0
(311) South Abutment, Bearings 1 & 2: Active corrosion with flaking rust. 2EA CS2. North Abutment, Bearings 1 & 2: Missing keeper bolt. 2EA CS3.							
312	Enclosed/Concealed Bearing	EA	20	20	0	0	0
321	Reinforced Concrete Approach Slab	SF	2730	2447	280	3	0
1080	Delamination/Spall/Patched Area	SF	3	0	0	3	0
1130	Cracking (RC and Other)	SF	280	0	280	0	0
(321) South Abutment, Approach slab: Longitudinal cracking with spalling. 3SF CS3. North Abutment , Approach slab:							
331	Reinforced Concrete Bridge Railing	LF	5760	4352	1403	5	0
1090	Exposed Rebar	LF	2	0	0	2	0
1130	Cracking (RC and Other)	LF	1403	0	1403	0	0
7000	Damage	LF	3	0	0	3	0
(331) Bridge Railing: Vertical cracking, typical throughout the structure. 1403LF CS2. Span 1 Left Spalling with exposed reinforcing steel in bridge railing. 1LF CS3. Span 4, Right: 1LF of CS3 exposed reinforcing steel. Span 9, left: 3LF impact damage.							

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Inspection Photos and Notes



12/19/2024

Elevation.



12/16/2024

Typical deck.



12/16/2024

Typical undersurface.



12/16/2024

Typical intermediate bent.

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12/19/2024

Right side of the Bridge: Channel view.



12/19/2024

Left side of the Bridge: Channel view.



11/01/2023

Aerial view of Downstream Channel.



11/01/2023

Aerial view of Upstream Channel.

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Inspection direction.



Span 6, Joint: minor debris impaction half of length.



Deck: Spalling, sound & unsound patches areas, & sealed transverse cracking typical throughout the structure.



Typical Floorbeam.

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Typical 2-Girder View.



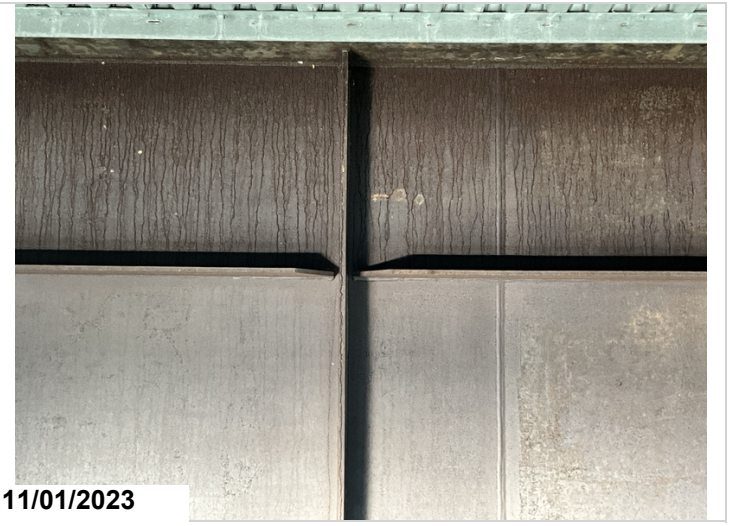
Typical Hanger Bar.



Typical Floor Beam.



Bearing Gussets are longitudinally welded. At Pier 2 the welds intersect Web Splice weld.



Typical Stiffener Terminations are E details.



Longitudinal welds to the Floor Beams are E details.



Typical transition.



Typical enclosed bearing.

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Typical movable bearing.



Typical Joint.



South Embankment Close view.



South Embankment Wide view.

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North Embankment Close view.



North Embankment Wide view.



Span 12, Right lane: Spalling with 2SF of CS3 exposed reinforcing steel in wheel path.



Span 12, Right lane: Spalling with 1SF of CS3 exposed reinforcing steel in wheel path.

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Span 11: Spalling, unsound & sound patched areas.



Span 11: Spalling & unsound patched areas.

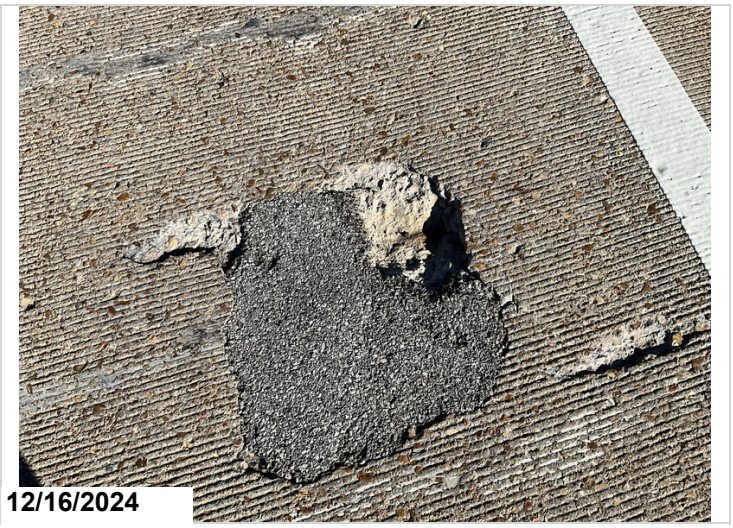


Span 11, Left Lane: Spalling with 1SF of CS3 exposed reinforcing steel in wheel path.



Span 10, Left lane: 5SF of CS3 spalling in wheel paths.

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Span 10, Right lane: Spalling with 1SF of CS3 exposed reinforcing steel in wheel path.



Span 11, left overhang, between first & second splice: Spalling with 35sf of CS3 exposed reinforcing steel & 15sf of CS3 spalling.



Span 11, Left overhang, adjacent to first splice: 14LF of spalling with CS3 exposed reinforcing steel & 8sf of CS3 spalling.



Span 10, Left overhang, Adjacent to second splice: 20SF of spalling with CS3 exposed reinforcing steel & 1lf of CS3 efflorescence.



Span 4, bay 2: Corrosion in the stay in place forms.



Span 9: patched areas.



Deck: Spalling, sound & unsound patches areas, & sealed transverse cracking typical throughout the structure.



Span 3: 2SF of CS3 unsound patch.

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State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Span 1: 35sf of CS3 spalling/unsound patches.



Deck: Transverse sealed cracking. CS2.



Span 1, Left lane: 4SF of CS3 spalling in wheel path.



Span 1: Typical patched areas.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Span 8, Left overhang: 8SF of CS3 spalling.



Span 3, Left overhang: 9SF CS3 spalling & 3SF of CS2 delam.
Right: 5SF of CS2 delam.



Span 1, Right overhang: 3SF of CS3 spalling.
Span 2, both: 6SF CS3 spalling.



Span 1, Overhangs: 30 transverse cracking with efflorescence.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Span 1, South Abutment, Girders 1 & 2: CS2 Active corrosion with minor flaking rust along Bottom Flange. 4LF per girder.



Span 9, Girders 1 & 2, Backside of pin & hanger assembly: 5LF per girder of active corrosion with CS3 flaking rust along the Bottom Flange.



Span 8, Girder 1, adjacent to Floorbeam behind Pier 8: missing bolts, holes not drilled in web of Girder.



Typical exterior girder.



Span 8, Girder 1, Between first & second splice: 4LF of cs3 flaking rust along Top Flange adjacent to spalled locations.



Span 6, Girder 2: Laminar tears from fabrication. Ahead of second splice.



Span 6, Girder 1, Second splice: Active corrosion with laminated rust build up along the bottom web juncture. CS3 length of splice.



Span 6, Girder 1: 2LF of CS3 2LF of CS2 flaking rust along Bottom Flange ahead of pin & hanger assembly.



Span 6, Girder 2: 4LF of CS2 flaking rust along Bottom Flange ahead of pin & hanger assembly.



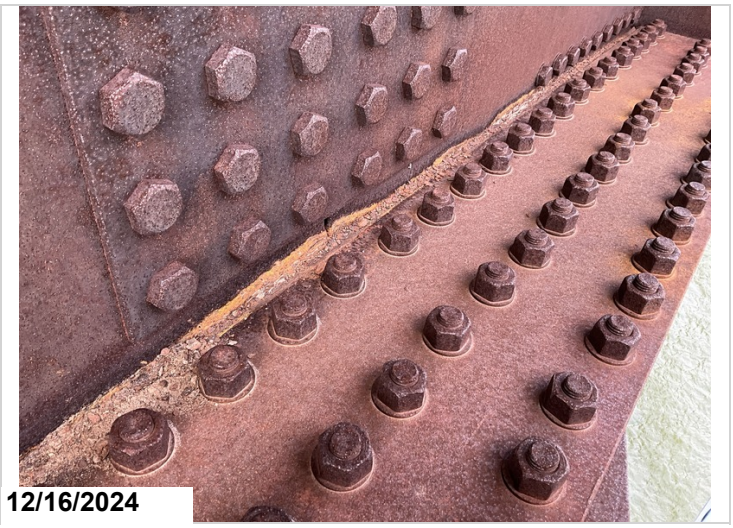
Span 5, Girder 2, Third splice: Active corrosion with CS3 laminated rust build up along bottom web juncture for the length of splice.



Span 5, Girders 1 & 2: Scattered locations of active corrosion with flaking rust along the Bottom Flange. CS2 100LF.



Typical splice plate.



Span 5, Girder 2, First Splice: Active corrosion with 3LF of CS3 laminated rust build up along bottom web juncture with 1/8" section loss.
Second splice: 2LF CS3.



Span 4, Girder 1, Fourth splice: Active corrosion with CS3 laminated rust build up in bottom web juncture for the length of splice plate.

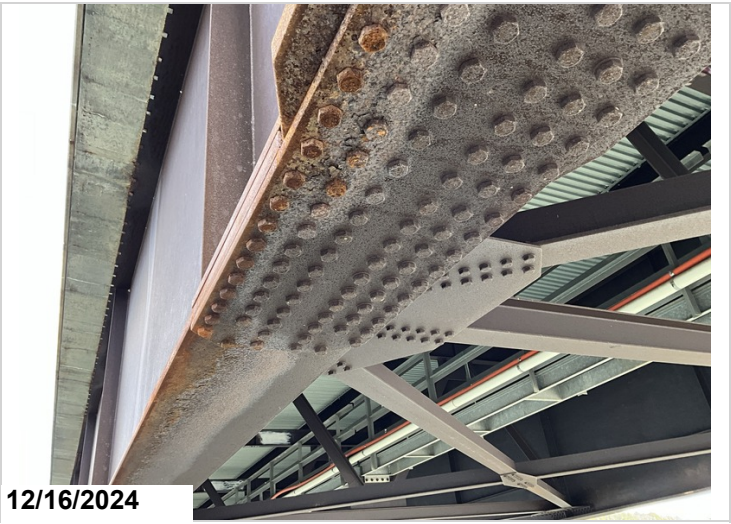


Span 4, Girder 1, Fourth splice: 8LF of CS3 flaking rust along Bottom Flange on ahead side & 10LF of CS2 flaking rust on back side.



Span 4, Girder 2, first splice: Active corrosion with 3LF of CS3 laminated rust build up along bottom web juncture.
Fourth splice: 3LF CS3.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Span 4, Girder 1, from Pier 3 to 30' ahead of first splice: Active corrosion with CS2 flaking rust along Bottom flange.
Girder 2: From Pier 3 to first splice.
Both girders also have isolated areas of corrosion along Top Flange in same LF.



Span 4, Girder 2, Behind second splice: 4LF of active corrosion with CS3 flaking rust along Top Flange.



Span 3, Girder 1, Third splice to Pier 3: Active corrosion with CS2 flaking rust along Bottom Flange.

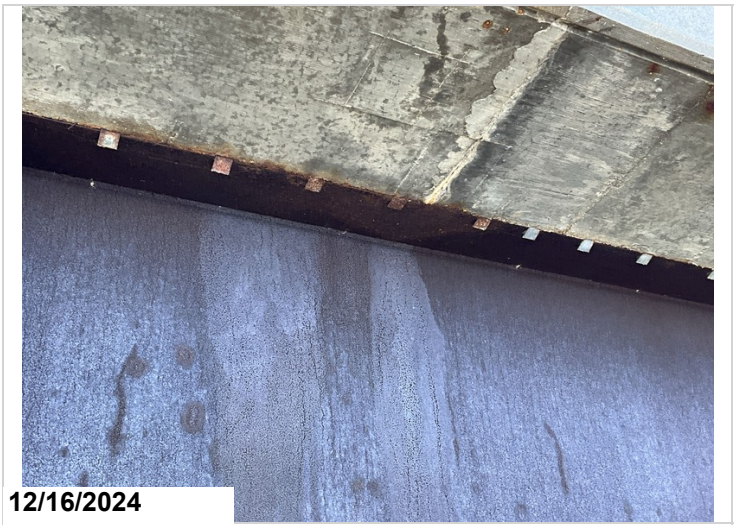


Span 2, Girder 1, Second splice: Typical corrosion between Bottom Flanges at splice connection.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Span 2, Girder 1, Between first & second splice: 25LF of CS2 flaking rust along the Bottom Flange.



Span 2, Girder 1, Between first & second splice: 5LF of CS2 flaking rust along the Top Flange.



Span 1, Girder 1: Active corrosion with flaking rust along Bottom Flange. 35LF CS2.



Span 1, Girder 1, First splice: Active corrosion with laminated rust build up in the bottom web juncture. 3LF CS3.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Typical throughout: No patina at Bearing Stiffeners.



Span 9, stringer 1, back.



Span 6, Floor beams 1 & 2, Stringers Active corrosion with CS2 corrosion. 1.5 per.



Span 9, Floorbeam back side of pin& hanger.



Span 6, Floorbeam 2.



Span 9, Floorbeam 9, Backside of joint: half CS3, other in CS2.





Floorbeam behind Pier 8: Missing bolts, holes not drilled Floorbeam.



Span 6, Floorbeams 1 & 2: Active corrosion with CS2 flaking rust, full length.



Span 9, Floor Beam 9, Back, Pin and Hanger: Has corrosion full length of floor beam due to joint leakage (CS3).



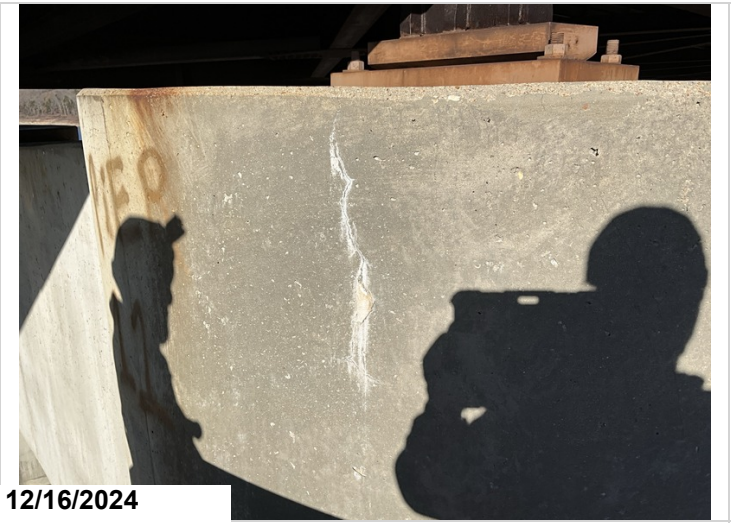
Span 9, Floor Beam 9, Back, Pin and Hanger: Has corrosion full length of floor beam due to joint leakage (CS3).



Span 9, Girder 2, Pin & hanger assembly: Pins read shorter than others on structure, tested on both sides with UT machine & no defects on either side.



Typical pin & hanger. Span 6.



Pier 11, Column 2: Typical vertical cracking with CS3 efflorescence build up.



Pier 11, Column 1: Typical vertical cracking.



Pier 9, Column 1: Typical crack repair.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Pier 2, Column 2: Shallow spalling with CS3 exposed reinforcing steel.



Pier 2, Column 1, Back: Spalling with CS3 exposed reinforcing steel & delam at the bearing area. No loss of bearing area.



North Abutment



North Abutment: Vertical cracking.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



South Abutment: 4LF of vertical cracking with CS2 efflorescence.



North abutment, Left wing wall: Diagonal cracking.



Pier 6: CS2 map cracking.



Pier 2: Horizontal cracking along cap. Full length. CS2.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



North Abutment, Joint.



Span 6, Joint: minor debris impaction half of length.



South Abutment joint.



South Abutment, Bearings 1 & 2: CS2 active corrosion with flaking rust.



North Abutment, Bearing 1: Missing keeper bolt.



North Abutment, Bearing 2: Missing keeper bolt.



Pier 11, Bearings.



Typical enclosed bearing.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



North Abutment, Approach slab.



South Abutment, Approach slab: sealed cracking.



South Abutment, Approach slab: Longitudinal cracking with 3 SF of cs3 spalling.

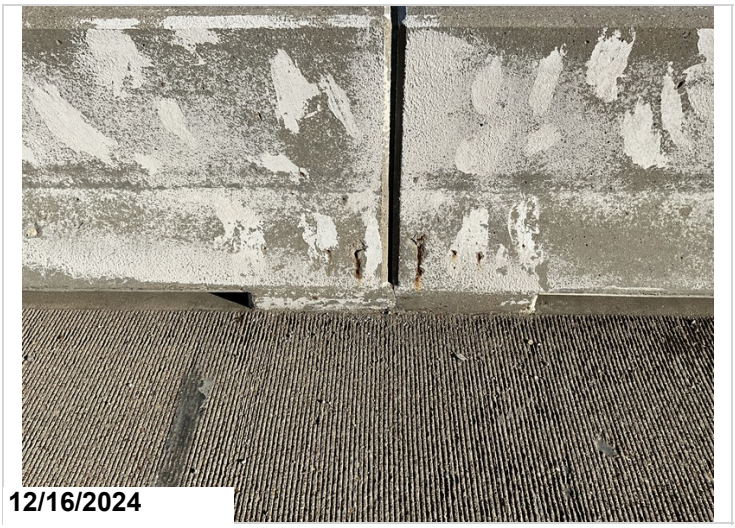


Bridge Railing: Vertical cracking, typical throughout the structure.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Span 9, left: 3LF impact damage.



Span 4, Right: 1LF of CS3 exposed reinforcing steel.



Utility lines.



Utility box.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



12/16/2024

Utilities.



12/16/2024

South Abutment utilities.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Maintenance Needs

Date Reported: 11/19/2020

Priority:	A - Safety deficiency; requires prompt action	**Status:**	Assigned
Type of Work:	Replace (General)	**Component:**	Miscellaneous

Deficiency Description

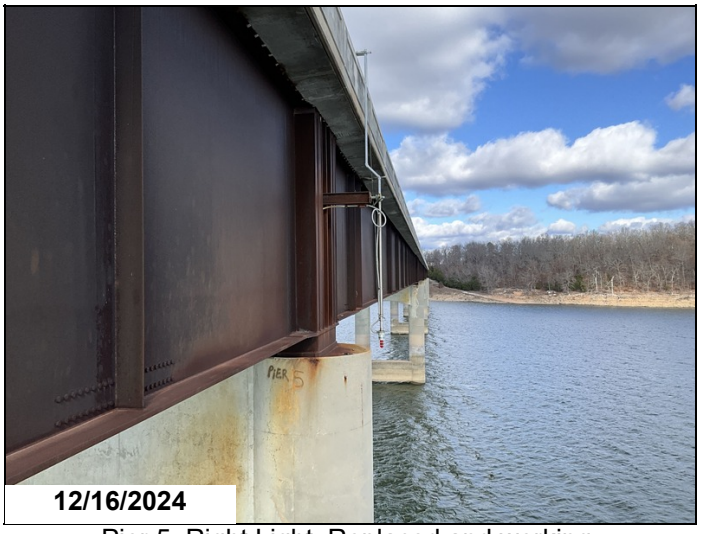
NAVIGATION LIGHTS:
Pier 5, Left light not working.
Span 4, Right light: Not working holding water.
Span 4, Left light is working holding water.
Pier 3, Left: Light is not working and the red glass is broken.

Remarks

Notified DME Jeff wheeler 12/9/2020 CSL
The boxes on the catwalk have been closed since previously reported.
The missing navigation light at pier 5 right has been replaced since previously reported and is operational at this time.



CANLET LED LUMINAIRE.



Pier 5, Right Light: Replaced and working.
Left light not working.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Span 4, Right light: Not working.
Left light is working. Both lights holding water.



Pier 4, Lights: Both are working.



Span 3, Both Lights: working.



Pier 3, Left: Light is not working and the red glass is broken.



Pier 3, Right: Light is working.



The Exterior Red Marker lights on the Upstream Side are not working.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Pier 5, Left: The navigation light is out. The right side is on at this inspection.



Catwalk to navigation light wires is open all boxes Pier 3-5.



Span 4, Navigation light: wires exposed.



Pier 5, Right: Navigation light missing.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Maintenance Needs

Date Reported: 11/07/2016

Priority: C - Important
Status: Monitor
Type of Work: Repair (General)
Component: Element

Deficiency Description

APPROACH GAURDRAIL:
Abutment 2 left side collision damage to approach guard rail.
Abut. 2, Rt. & Lt: Bolts securing the approach rail to the concrete bridge rail are missing.

Remarks



North Approach Guard rail, Left: 10LF of collision damage.



North Abutment, Left & right transition connection: 1 missing bolt.



Abutment 2, Left: minor collision damage



Abutment 2, Left: minor collision damage

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Abutment 2, Left: Collision damage to approach guard rail.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Maintenance Needs

Date Reported: 11/19/2020

Priority: C - Important

Status: Monitor

Type of Work: Repair (General)

Component: Miscellaneous

Deficiency Description

NAVIGATION PLACARDS:

Pier 4 Navigation placards deterioration.
Recommend fresh paint.

Remarks



Pier 4, Right.



Navigation placards.



Pier 4, Navigation placards.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Maintenance Needs

Date Reported: 12/02/2020

Priority: C - Important
Status: Monitor
Type of Work: Repair (General)
Component: Deck

Deficiency Description

DRIVING SURFACE:

The driving surface had isolated areas of small/medium potholes and widespread delamination.

Remarks

Scheduled for Contract Deck Overlay 6/2021
11/1/2023 CCP and ZBA Contractors were prepping and setting up for a polymer overlay at the time of this inspection.



Span 2, Left lane: minor Spalling in driving surface



Span 2, Left Lane: Spalling in driving surface

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Span 2, Left Lane: Spalling in driving surface

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Maintenance Needs

Date Reported: 11/14/2022

Priority: C - Important
Status: Monitor
Type of Work: Repair (General)
Component: Element

Deficiency Description

PIER 2, COLUMN 1:
Spalling with exposed reinforcing steel up to the bearing but no loss of bearing area.

Remarks

12/9/2022 - KAW - Requesting additional Photos during next inspection.



Pier 2, Column 1, Back: Spalling with CS3 exposed reinforcing steel & delam at the bearing area. No loss of bearing area.



Pier 2, Column 1: Spalling with exposed reinforcing steel

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Maintenance Needs

Date Reported: 11/08/2010

Priority: D- Routine
Status: Monitor

Type of Work: Approach Leveling/Maintenance
Component: Miscellaneous

Deficiency Description

APPROACH SLABS:
North and South approach roadways: Pavement is cracked and settled.

Remarks

11/1/2023 CCP and ZBA Contractors were in the process of repairing and asphalting the approach gutters during this inspection. Work should be complete by next inspection.



North approach, approach roadway: minor settlement & cracking.



Approach Slab 2: Typical cracking.



South approach: longitudinal cracking.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Maintenance Needs

Date Reported: 11/08/2010

Priority: D- Routine
Status: Monitor
Type of Work: Repair (General)
Component: Miscellaneous

Deficiency Description

UTILITIES:
Abut. 1: Electrical conduit is broken at ground level.
Abut. 2: Electrical conduit is separated.
Pier 6, Right and left side: ground strap broke at the hanger bar.
Joint 9A: Flex conduit is separated.
Pier 9, Left: ground strap broke.

Remarks



North Abutment: Conduit separated.

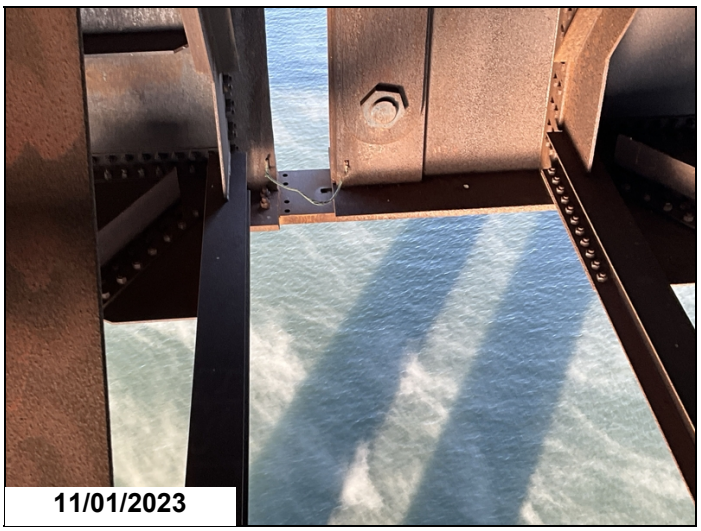


Pier 9, Left: ground strap broke

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Pier 6, Right: ground strap broke.



Pier 6, left: hanger strap broke.



Abutment 2: Loose conduct connections.



Joint 9A: conduit broke.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Maintenance Needs

Date Reported: 11/19/2012

Priority: D- Routine

Status: Monitor

Type of Work: Miscellaneous

Component: Element

Deficiency Description

BEARINGS:
Abut. 2, Girder 1 & 2 Bearing has a bolt missing.

Remarks



North Abutment, Bearing 2: Missing keeper bolt.



North Abutment, Bearing 1: Missing keeper bolt.



Abutment 2, Girder 2: Missing bolt.



Abutment 2, Girder 2, Bearing: Missing bolt.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024



Abutment 2 girder 1: Pindle bolt broke. Girder 2 has both bolts missing.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Maintenance Needs

Date Reported: 11/19/2012

Priority: D- Routine

Status: Monitor

Type of Work: Vandalism Problem

Component: Bridge

Deficiency Description

GRAFFITI:
Abut. 1 & 2: Heavy graffiti. Graffiti on columns, abutments, and caps scattered throughout the bridge.

Remarks



Abutment 2: Graffiti.



Abutment 2: graffiti.

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is Recommended?
A-54 - Sealable Deck Cracks	No
A-55 - Deck Washing Needed	No
A-56 - Joint Cleaning/Flushing Needed	Yes
A-57 - Beam End and Bearing Paint Needed	No
A-58 - Cap Cleaning/Flushing Needed	No
A-59 - Joint Repair Needed	No
A-60 - Full Beam Painting Needed	No
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 (No)

A-55 - Deck Washing Needed (No)

A-56 - Joint Cleaning/Flushing Needed (Yes)
Joint in span 6 has minor debris impaction.



Span 6, Joint: minor debris impaction half of length.

A-57 - Beam End and Bearing Painting Needed (No)

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

A-59 - Joint Repair Needed (No)

A-60 - Full Beam Painting Needed (No)

A-61 - Polymer Overlay Advised (No)

A-62 - Hydro and LMC Advised (Yes)
Deck needs a Hydro demolition and LMC overlay. Polymer overlay or crack sealing is no longer a sufficient repair due to widespread delamination.



Deck: Spalling, sound & unsound patches areas, & sealed transverse cracking typical throughout the structure.

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

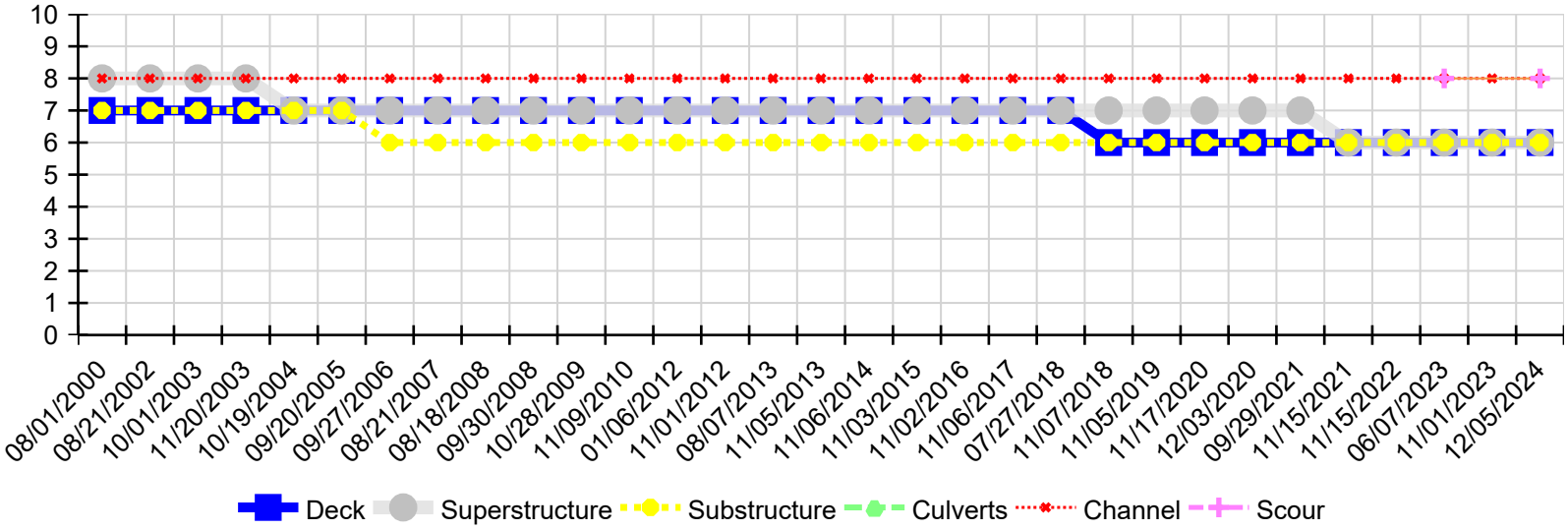
A-64 - Vegetation Removal Requested (No)

A-65 - Clogged deck drains?

A-66 - Approach minor pothole/leveling needed

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
12/05/2024	6	6	6	N	8	8
11/01/2023	6	6	6	N	8	N
06/07/2023	6	6	6	N	8	8
11/15/2022	6	6	6	N	8	N
11/15/2021	6	6	6	N	8	N
09/29/2021	6	7	6	N	8	N
12/03/2020	6	7	6	N	8	N
11/17/2020	6	7	6	N	8	N
11/05/2019	6	7	6	N	8	N
11/07/2018	6	7	6	N	8	N
07/27/2018	7	7	6	N	8	N
11/06/2017	7	7	6	N	8	N
11/02/2016	7	7	6	N	8	N
11/03/2015	7	7	6	N	8	N
11/06/2014	7	7	6	N	8	N
11/05/2013	7	7	6	N	8	N
08/07/2013	7	7	6	N	8	N
11/01/2012	7	7	6	N	8	N
01/06/2012	7	7	6	N	8	N
11/09/2010	7	7	6	N	8	N
10/28/2009	7	7	6	N	8	N
09/30/2008	7	7	6	N	8	N
08/18/2008	7	7	6	N	8	N
08/21/2007	7	7	6	N	8	N
09/27/2006	7	7	6	N	8	N
09/20/2005	7	7	7	N	8	N
10/19/2004	7	7	7	N	8	N

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
11/20/2003	7	8	7	N	8	N
10/01/2003	7	8	7	N	8	N
08/21/2002	7	8	7	N	8	N
08/01/2000	7	8	7	N	8	N

NSTM Inspection Report and Procedure
Bridge No. 05769 9.18 MI SO MO LINE

A-128 - Description of Structure

Bridge number 05769 carries highway 101 over Lake Norfork. The total length of the structure is 2880' and the out to out width is 35'. The longest span is 310'. The plans indicate this structure is laid out from south to north, opposite the log mile. All spans are continuous 2-girder spans with pin and hanger assemblies in spans 6 and 9. The welded steel plate girders, the floor beams, and the pin and hanger assemblies are considered NSTM and were included in this inspection.

A-129 - Range Of Dates, Personnel and Responsibilities

12/11/2024 - 12/12/2024
Austin Janes - Team Lead
Nick Holmgren - Bridge Inspector
All NSTM members were inspected hands-on and within arms reach by both the team lead and the bridge inspector.

A-130 - Access Equipment

The Aspen A-75 under-bridge inspection unit was used to access the NSTM elements and used to access the inspection catwalk. A lane closure that includes signs, cones, and flaggers was utilized to shut down one traffic lane for the inspection. For this inspection, the northbound lane was closed to inspect the bridge in the same direction as the plans. The lane closure was coordinated and conducted by the inspection team, with the assistance of Baxter County Area Maintenance Yard flagging personnel.

B.IR.02 - Fatigue Prone Details

Y - E/E' details are present
The termination of longitudinal stiffeners on the girders as well as longitudinally welded bearing gussets are E details. Additionally, longitudinally welded cross frames on the floor beams are E details. Finally, all pin and hanger assemblies have E details at the pin locations on the hanger bar.

B.C.14 - NSTM Inspection Condition

6 - SATISFACTORY - Widespread minor or isolated moderate defects.
Overall, the NSTM members were found to be in satisfactory condition. Corrosion is widespread but in most instances minor. Heavier (CS3) corrosion can be found in both the girders and floor beams at finger joint locations and girder splices. As a result, the girders and floor beams were rated a 6 while the pin and hanger assemblies were given a rating of 7.
Welded steel plate girders - 6
Steel floor beams - 6
Pin and Hanger assemblies - 7

B.IR.04 - Complex Feature

N - Bridge does not have complex feature

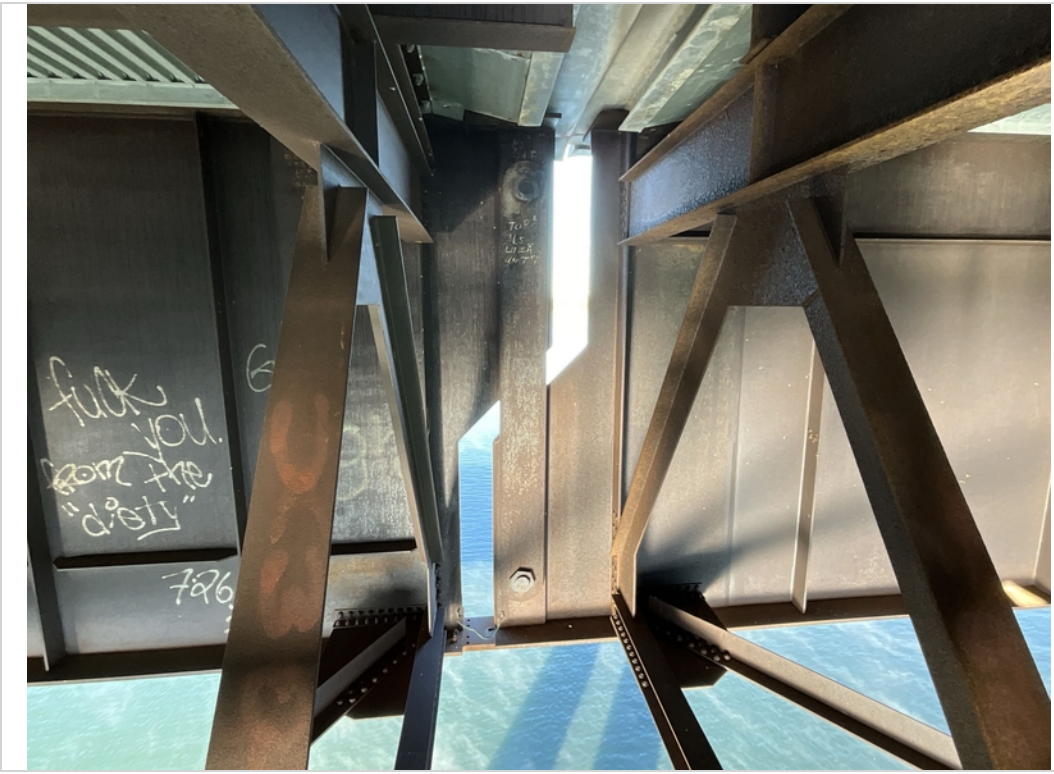
Reference Photos:



Typical Floorbeam.



Typical 2-Girder View.



Typical Hanger Bar.



Typical Floor Beam.

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

Bridge #05769 NSTM Member Inspection Log			
Member or Element (NSTM)	**Access Equipment**	**Condition Rating**	**General Condition Notes**
152 Steel Floor Beam	Aspen A-75 under -bridge inspection unit and Inspection Catwalk.	6	Overall, the Floorbeams are in Satisfactory condition with isolated areas of active corrosion with CS2 flaking rust along the floorbeams adjacent to the pin and hanger locations.
161 Steel Pin - Pin and Hanger Assembly	Aspen A-75 under -bridge inspection unit.	7	Overall, the Pin and Hanger Assemblies are in Good condition with minor corrosion present due to the exposure of the joints. At this inspection, each pin was tested with the Olympus Epoch 650 Ultrasonic Testing Machine.
107 Steel Open Girder/Beam	Aspen A-75 under -bridge inspection unit.	6	Overall, the Steel Girders are in Satisfactory condition. They have widespread active corrosion with CS2 surface corrosion and minor flaking rust, along with isolated areas of active corrosion with CS3 flaking rust, laminated rust build-up, and section loss at the splice plate connection locations and girder ends adjacent to the Pin and Hanger locations.

NSTM specific defect notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	5760	5380	295	85	0

(107) Overall, the steel girders were found to be in satisfactory condition. Corrosion is common throughout with 380' of corrosion documented over the entirety of the steel girders. Corrosion amounted to 295'(CS2) and 85'(CS3) at the time of this inspection. Corrosion is primarily located in the bottom flange throughout the structure (CS2). Corrosion can be found at the splice connections and areas of moisture exposure such as adjacent to joints (CS3).
Span 1, Girder 1, First splice: Active corrosion with laminated rust build up in the bottom web juncture. 3LF CS3.
Span 1, Girder 1: Active corrosion with flaking rust along Bottom Flange. 35LF CS2.
Span 1, South Abutment, Girders 1 & 2: CS2 Active corrosion with minor flaking rust along Bottom Flange. 8LF CS2.
Span 2, Girder 1, Between first & second splice: Flaking rust along the Top Flange. 5LF CS2.
Span 2, Girder 1, Between first & second splice: Flaking rust along the Bottom Flange. 25LF CS2.
Span 2, Girder 1, Second splice: Typical corrosion between Bottom Flanges at splice connection.
Span 3, Girder 1, Behind first splice: 3LF of active corrosion with CS2 flaking rust along Top Flange. 3LF CS2.
Span 3, Girder 1, Third splice to Pier 3: Active corrosion with CS2 flaking rust along Bottom Flange. 3LF CS2.
Span 4, Girder 1, Fourth splice: Flaking rust along Bottom Flange on ahead side & flaking rust on back side. 8LF CS3, 10LF CS2.
Span 4, Girder 1, Fourth splice: Active corrosion with laminated rust build up in bottom web juncture for the length of splice plate. 3LF CS3.
Span 4, Girder 1, from Pier 3 to 30' ahead of first splice: Active corrosion with flaking rust along Bottom flange. 30LF CS2.
Span 4, Girder 2, Behind second splice: Active corrosion with flaking rust along Top Flange. 4LF CS3.
Span 4, Girder 2, first splice: Active corrosion with laminated rust build up along bottom web juncture. Fourth splice: 3LF CS3.
Span 4, Girder 2, From Pier 3 to first splice: Corrosion. 20LF CS2.
Span 5, Girder 2, First Splice: Active corrosion with laminated rust build up along bottom web juncture with 1/8" section loss. Second splice: 3LF CS3.
Span 5, Girder 2, Third splice: Active corrosion with laminated rust build up along bottom web juncture for the length of splice. 3LF CS3.
Span 5, Girders 1 & 2: Scattered locations of active corrosion with flaking rust along the Bottom Flange. CS2 100LF.

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Span 6, Girder 1, First splice: Active corrosion with laminated rust build up along bottom web juncture. 3LF CS3. Span 6, Girder 1, Second splice: Active corrosion with laminated rust build up along the bottom web juncture. 3LF CS3. Span 6, Girder 1: Flaking rust along Bottom Flange ahead of pin & hanger assembly. 2LF CS3, 2LF CS2. Span 6, Girder 2: Flaking rust along Bottom Flange ahead of pin & hanger assembly. 4LF CS2. Span 6, Girder 2: Laminar tears from construction. Ahead of second splice. Span 7, Girder 2, First splice: Flaking rust along Bottom Flange on back side. 4LF CS2. Span 7, Girder 2, fourth splice: Laminated rust build up along bottom web juncture. 1LF CS3. Span 8, Girder 1, Between first & second splice: Flaking rust along Top Flange adjacent to spalled locations. 4LF CS3. Span 8, Girder 1, adjacent to Floor beam behind Pier 8: missing bolts, holes not drilled in web of Girder. Span 8, Girder 2, first splice: Flaking rust along Bottom Flange of splice & in web juncture. 4LF CS3. Span 9, Girder 2, Ahead of first splice: 3LF of flaking rust along Top Flange. Girder 1: 6LF behind first splice. 9LF CS3. Span 9, Girder 2, third splice: Active corrosion with laminated rust build up and 1/8” section loss at the bottom web juncture. 1LF CS3. Span 9, Girders 1 & 2, Backside of pin & hanger assembly: Active corrosion with flaking rust along the Bottom Flange on both girders. 10LF CS3. Span 10, Girder 1, Between first & second splice: Active corrosion with minor flaking rust in isolated locations along the Top Flange. 12LF CS2. Span 10, Girder 1, Second splice: Active corrosion with CS3 laminated rust build up along the bottom web juncture for the full length of splice plate. 3LF CS3. Span 10, Girder 2, Second splice: Active corrosion with CS3 laminated rust build up along the bottom web juncture for the full length of splice plate. 2LF CS3. Span 11, Girder 1, Behind second splice: Active corrosion with flaking rust along Bottom Flange. 8LF CS2.							
152	Steel Floor Beam	LF	3584	3504	14	66	0
(152) Overall, the floor beams were found to be in satisfactory condition. Span 6, Floor Beam 1: Has corrosion full length of floor beam due to joint leakage. 28LF CS3. Span 6, Floor beam 2: Corrosion at the girder connections traveling toward center for 6' on each end. 12LF CS3. Span 6, Floor beams 1 & 2: Active corrosion with CS2 flaking rust, full length besides what is noted in CS3. Span 8, Floorbeam behind Pier 8: Missing bolts, holes not drilled into the floor beam. Span 9, Floor Beam 9: Back, Pin and Hanger: Has corrosion full length of floor beam due to joint leakage. 14LF CS3, 14LF CS2. Span 9, Floor beam 9: Backside of joint: half CS3, other in CS2. Span 9, Floor beam 10: Corrosion at the girder connections traveling toward center for 6' on each end. 12LF CS3.							
161	Steel Pin - Pin and Hanger Assembly	EA	4	0	4	0	0
(161) The pin and hanger assemblies were in good overall condition at this time. Minor corrosion is present due to exposure of open finger joints (CS2), but all members were in otherwise sound condition. Span 9, Girder 2, Pin & hanger assembly: Pins read shorter than others on structure, tested on both sides with UT machine & no defects on either side.							

Asset #05769(Routine, NSTM)
State Highway 101 over Norfork Lake
Location: 9.18 MI SO MO LINE
Team Lead: Austin Janes **Inspection Date:** 12/05/2024

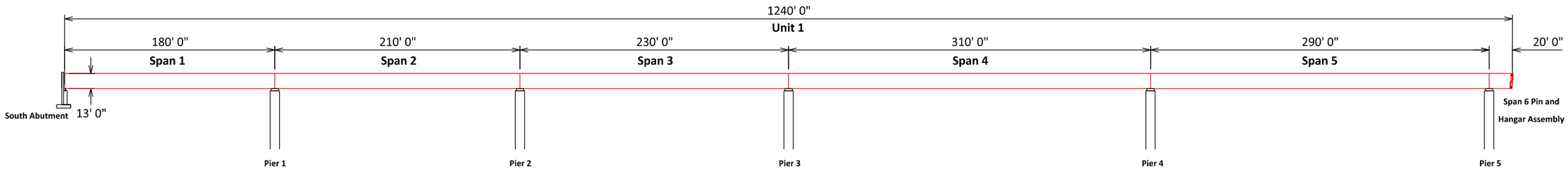
Signatures

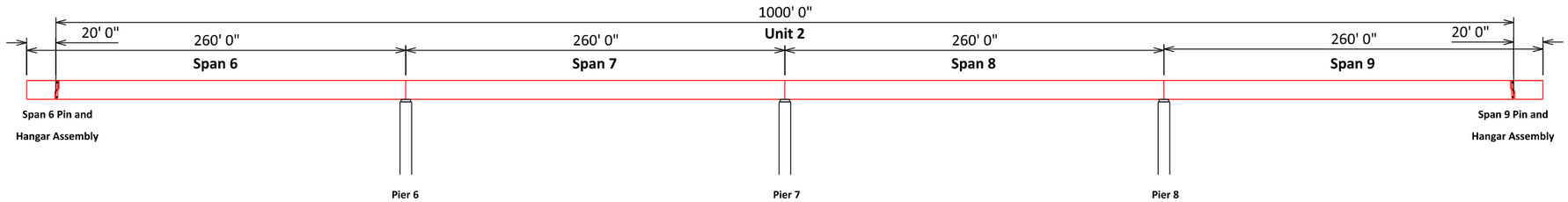
Signature	Printed Name	Date
Austin Janes	(Team Lead) Austin Janes	03/06/2025
Nick Holmgren	Nicholas Holmgren	03/06/2025

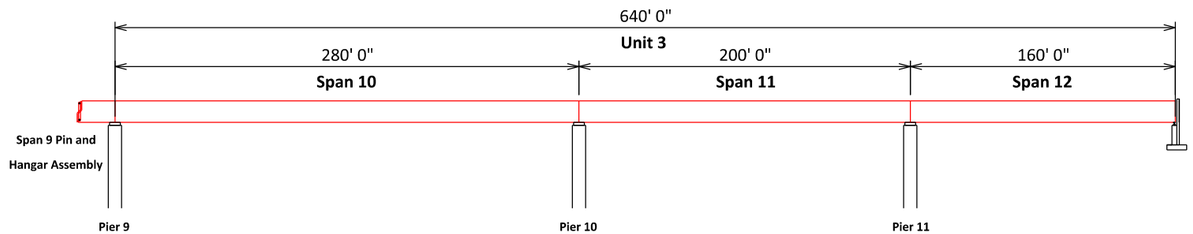
NSTM Plans

NSTM's are highlighted red

25' Scale







N

0' 80' 160'

Scale: 1"=80'

ARKANSAS STATE HIGHWAY COMMISSION
Little Rock, ARK.

Inspection Dir: S - N

Channel Flow: Still Water

BRIDGE NO. 05769

Drawn By: NVH

Project: NSTM

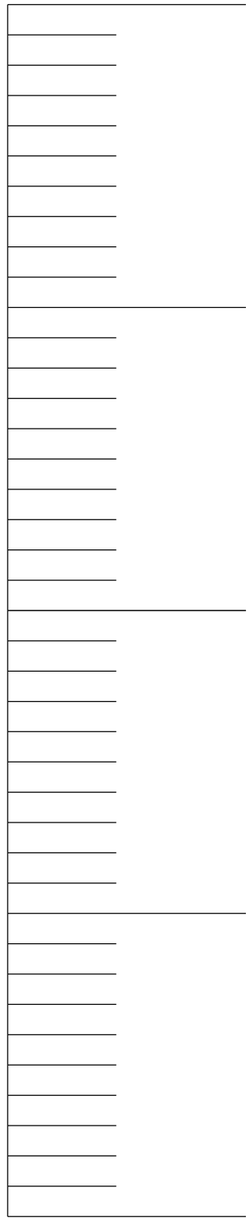
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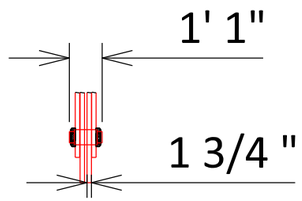
Date: 12/19/2024

ARDOT BRIDGE OPERATIONS

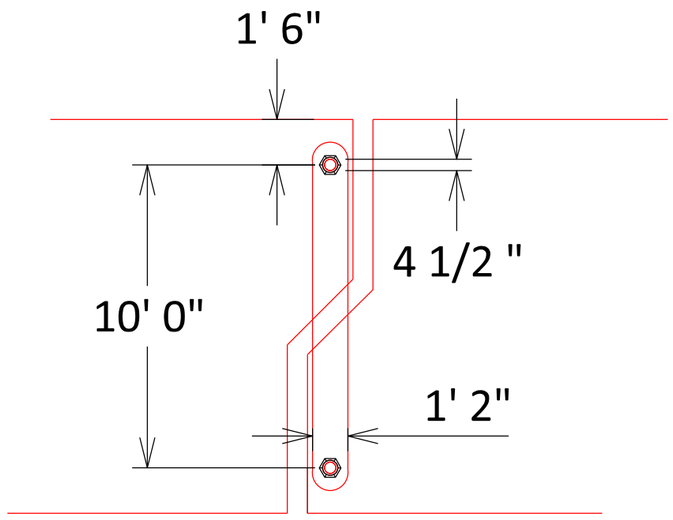
10' Scale

NSTM Details

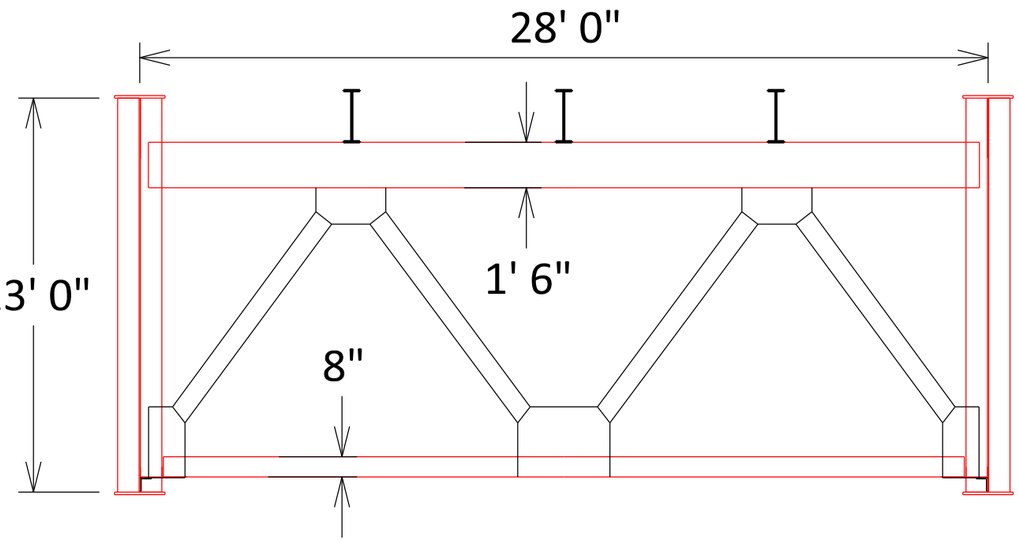




Pin Cross Section



Typical Pin and Hangar



Typical Floor Beam

0' 5' 10'

ARKANSAS STATE HIGHWAY COMMISSION Little Rock, ARK.	Scale: 1"=5'	BRIDGE NO. 05769	
	Inspection Dir: S - N	Channel Flow: Still water	Drawn By: NVH Checked By: AMJ
			Project: NSTM Date: 12/19/2024

ARDOT BRIDGE OPERATIONS