

Bridge 06642 Inspection Report



Latitude:33.23752, Longitude:-93.25100

Route:19 Section:01 Log:16.197

Arnold Road ID:14x19x1xA, Arnold Log mile:16.155

District 07, 27 - Columbia County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

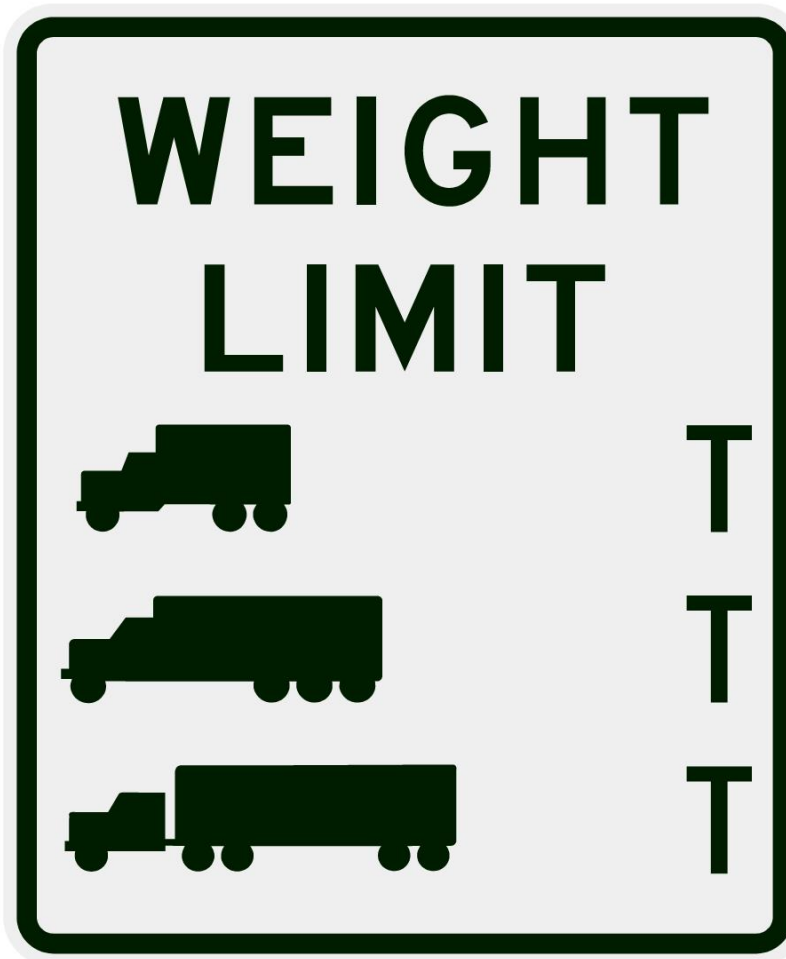
Bridge Posting Information

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

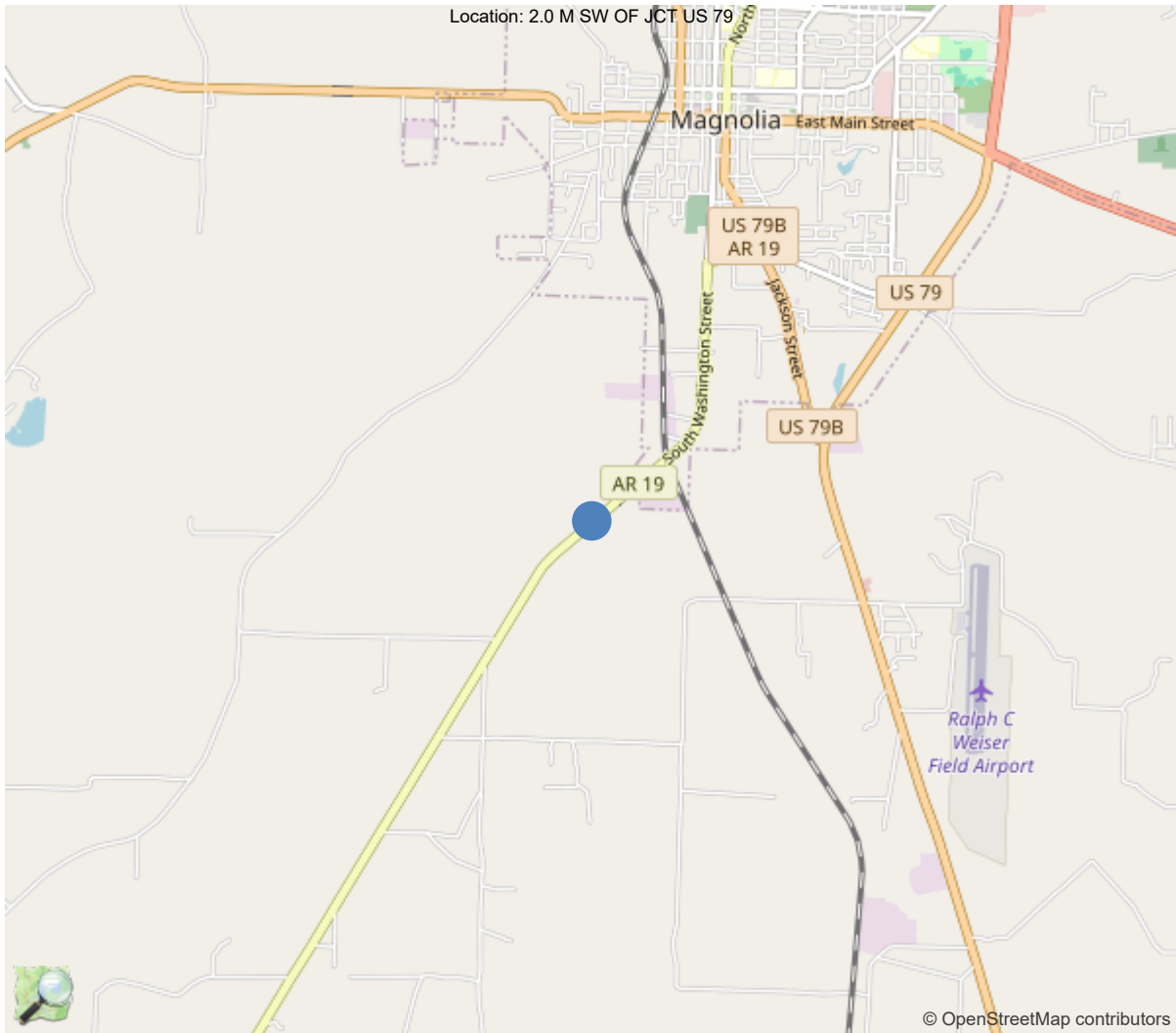
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	38		
Code 9 (31 Tons)	45		
Code 5 (40 Tons)	59		

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



33.23752, -93.25100

National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	06642
(5) Inventory Route	1
(2) Highway Agency District	07 - District 07
(3) County Code	27 - Columbia County
(4) Place Code	0
(6) Features Intersected	Nations Creek
(7) Facility Carried	SH 19 S-1 LM 16.20
(9) Location	2.0 M SW OF JCT US 79
(11) Mile Point	16.197 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	33.23752
(17) Longitude	-93.251
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	14
Material	1 - Concrete
Type	4 - Tee beam
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	6
(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	9 - Other
AGE AND SERVICE	
(27) Year Built	1997
(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	2000
(30) Year of ADT	2018
(109) Truck ADT	12 %
(19) Bypass, Detour Length	7 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	25 ft
(49) Structure Length	150 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	34.8 ft
(32) Approach Roadway Width (W/Shoulders)	40 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	32 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	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	17 - Urban Collector
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exists
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	0 - The inventory route is not
(20) Toll	3 - On free road. The structure
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	7
(59) Superstructure	7
(60) Substructure	7
(61) Channel & Channel Protection	6
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	5 - MS 18 / HS 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	60
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	36
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	7
(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	0 - Inspected feature does not meet
(113) Scour Critical Bridges	5 - 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	2523
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			07/31/2023
(91) Frequency			24
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
<p>* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.</p>			



Team Lead: John Parks, Inspection Date: 07/31/2023

Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	06642
B.ID.02 Bridge Name	
B.ID.03 Previous Bridge No.	
B.W.01 Year Built	

LOCATION	
B.L.01 State Code	5 - Arkansas
B.L.02 County Code	27 - Columbia County
B.L.03 Place Code	00000 - N/A
B.L.04 Highway Agency District	07 - District 07
B.L.05 Latitude	33.23752
B.L.06 Longitude	-93.251
B.L.07 Border Bridge Number	
B.L.08 Border Bridge State or Country Code	
B.L.09 Border Bridge Insp. Resp.	
B.L.10 Border Bridge Designated Lead State	
B.L.11 Bridge Location	
B.L.12 Metropolitan Planning Organization	

CLASSIFICATION	
B.CL.01 Owner	
B.CL.02 Maint. Responsibility	
B.CL.03 Federal or Tribal Land Access	
B.CL.04 Historic Significance	
B.CL.05 Toll	
B.CL.06 Emergency Evacuation Designation	

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

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

B.G.10 Bridge Median	
B.G.11 Skew	
B.G.12 Curved Bridge	
B.G.13 Max Bridge Height	
B.G.14 Sidehill Bridge	
B.G.15 Irregular Deck Area	
B.G.16 Calculated Deck Area	

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

INSPECTION REQUIREMENTS	
B.IR.01 NSTM Inspection Required	
B.IR.02 Fatigue Details	
B.IR.03 UW Inspection Required	
B.IR.04 Complex Feature	

COMPONENT CONDITION RATINGS	
B.C.01 Deck Condition Rating	
B.C.02 Superstructure Condition	
B.C.03 Substructure Condition	
B.C.04 Culvert Condition	
B.C.05 Bridge Railing Condition	
B.C.06 Bridge Railing Transitions Condition	
B.C.07 Bridge Bearings Cond.	
B.C.08 Bridge Joints Condition	
B.C.09 Channel Condition Rating	
B.C.10 Channel Protection Condition	
B.C.11 Scour Condition Rating	
B.C.12 Bridge Condition Classification	
B.C.13 Lowest Condition Rating	
B.C.14 NSTM Insp. Condition	
B.C.15 UW Inspection Condition	

APPRAISAL	
B.AP.01 Approach Roadway Alignment	
B.AP.02 Overtopping Likelihood	
B.AP.03 Scour Vulnerability	
B.AP.04 Scour Plan of Action	
B.AP.05 Seismic Vulnerability	



Team Lead: John Parks, Inspection Date: 07/31/2023

HIGHWAY ROUTES					
Highway Parent	B.RT.01 Route Designation	B.RT.02 Route Number	B.RT.03 Route Direction	B.RT.04 Route Type	B.RT.05 Service Type

POSTING STATUS DATA	
B.PS.01 Load Posting Status	B.PS.02 Posting Status Change Date

LOAD EVALUATION AND POSTING			
B.EP.01 Legal Load Configuration	B.EP.02 Legal Load Rating Factor	B.EP.03 Posting Type	B.EP.04 Posting Value



Asset #06642(Routine, Underwater type 2)

SH 19 S-1 LM 16.20 over Nations Creek

Location: 2.0 M SW OF JCT US 79

Team Lead: John Parks Inspection Date: 07/31/2023

Inspection Notes

General Observation

This structure is logged from South to North.

National Bridge Element Quantities and Notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	5220	4913	307	0	0
1080	Delamination/Spall/Patched Area	SF	1	0	1	0	0
1120	Efflorescence/Rust Staining	SF	46	0	46	0	0
1130	Cracking (RC and Other)	SF	260	0	260	0	0
(16) Span 1: - 22' Efflorescence on the bottom of the Top Flange. CS2 - 30' Cracking on the top of the Top Flange. CS2 Span 2: -2' Efflorescence on the bottom of the Top Flange. CS2 - 30' Cracking on the top of the Top Flange. CS2 Span 3: -3' Efflorescence on the bottom of the Top Flange. CS2 -75' Cracking on the top of the Top Flange. CS2 Span 4: -3' Efflorescence on the bottom of the Top Flange. CS2 -25' Cracking on the top of the Top Flange. CS2 Span 5: -4' Efflorescence on the bottom of the Top Flange. CS2 -50' Cracking on the top of the Top Flange. CS2 Span 6: -12' Efflorescence on the bottom of the Top Flange. CS2 -50' Cracking on the top of the Top Flange. CS2 -1' spall in the top of the Top Flange, mid span 4' right of center line. CS2							
110	Reinforced Concrete Open Girder/Beam	LF	600	600	0	0	0
215	Reinforced Concrete Abutment	LF	107	107	0	0	0
227	Reinforced Concrete Pile	EA	20	20	0	0	0
234	Reinforced Concrete Pier Cap	LF	174	166	2	6	0
1080	Delamination/Spall/Patched Area	LF	8	0	2	6	0
(234) Bent 4: -Back side of the cap, below left keyway, 2' diam. x 2" deep spall. 2' CS3 -Back side of the cap, below the right keyway, 10" diam. x 2" deep spall. 1' CS2 Bent 5: -Back side of the cap, below both keyways, 2' diam. x 2" deep spall. 4' CS3 Bent 6: -Back side of the cap, below left keyway, 10" diam. x 2" deep spall. 1' CS2.							
301	Pourable Joint Seal	LF	174	0	174	0	0
2320	Seal Adhesion	LF	174	0	174	0	0
(301) Losing bond with adjacent deck							
331	Reinforced Concrete Bridge Railing	LF	300	282	18	0	0
1080	Delamination/Spall/Patched Area	LF	6	0	6	0	0

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1120	Efflorescence/Rust Staining	LF	12	0	12	0	0
(331) Scattered pop outs through out the rail and small area of efflorescence.							

Inspection Photos and Notes



Elevation



Name plate



Approach



Deck overview



Deck Underview



Typical superstructure



Typical substructure



Channel right side.



Channel left side



Deck cracks span 6 up to 0.020"



Bent 5 cap back spalls



Joint material Bent 4 worn



Asset #06642(Routine, Underwater type 2)

SH 19 S-1 LM 16.20 over Nations Creek

Location: 2.0 M SW OF JCT US 79

Team Lead: John Parks Inspection Date: 07/31/2023

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	Yes
A-62 - Hydro and LMC Advised	
A-63 - Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	Yes
A-65 - Clogged deck drains?	
A-66 - Approach minor pothole/leveling needed	

A-54 - Sealable Deck Cracks

A-55 - Deck Washing Needed

A-56 - Joint Cleaning/Flushing Needed



Asset #06642(Routine, Underwater type 2)

SH 19 S-1 LM 16.20 over Nations Creek

Location: 2.0 M SW OF JCT US 79

Team Lead: John Parks Inspection Date: 07/31/2023

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 (Yes)

A-62 - Hydro and LMC Advised

A-63 - Missing/Incorrect Log Mile Signage

A-64 - Vegetation Removal Requested (Yes)

A-65 - Clogged deck drains?



Asset #06642(Routine, Underwater type 2)

SH 19 S-1 LM 16.20 over Nations Creek

Location: 2.0 M SW OF JCT US 79

Team Lead: John Parks Inspection Date: 07/31/2023

A-66 - Approach minor pothole/leveling needed



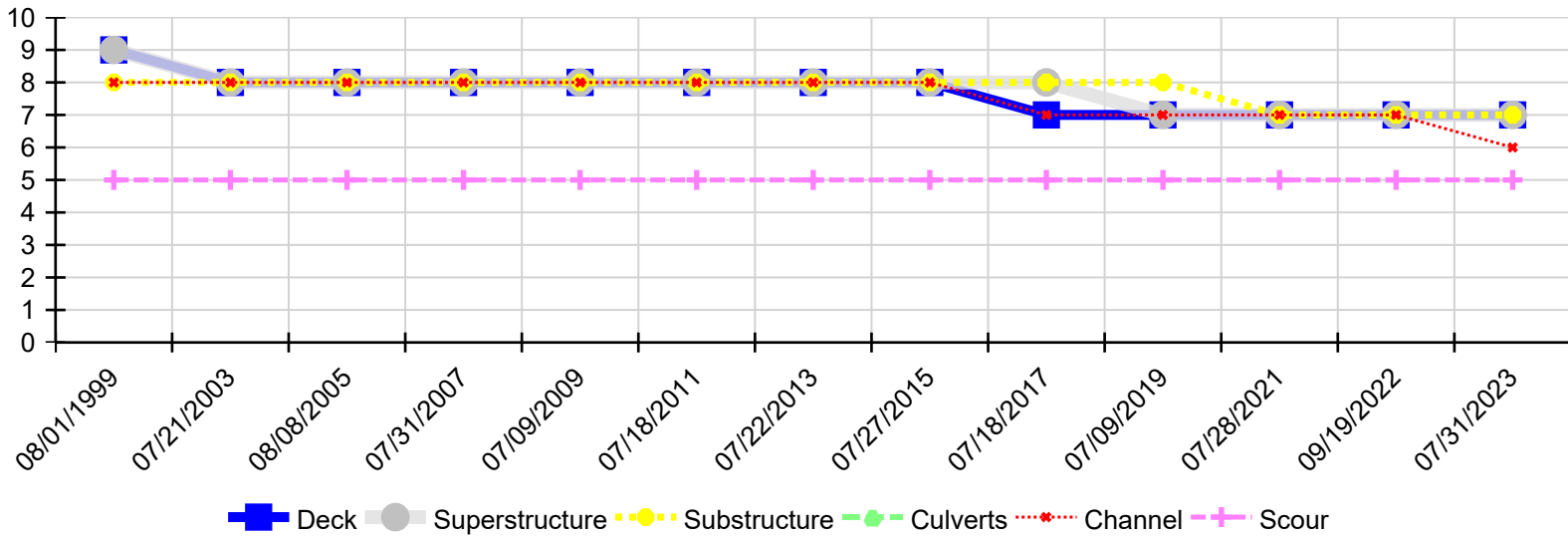
Asset #06642(Routine, Underwater type 2)

SH 19 S-1 LM 16.20 over Nations Creek

Location: 2.0 M SW OF JCT US 79

Team Lead: John Parks Inspection Date: 07/31/2023

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
07/31/2023	7	7	7	N	6	5
09/19/2022	7	7	7	N	7	5
07/28/2021	7	7	7	N	7	5
07/09/2019	7	7	8	N	7	5
07/18/2017	7	8	8	N	7	5
07/27/2015	8	8	8	N	8	5
07/22/2013	8	8	8	N	8	5
07/18/2011	8	8	8	N	8	5
07/09/2009	8	8	8	N	8	5
07/31/2007	8	8	8	N	8	5
08/08/2005	8	8	8	N	8	5
07/21/2003	8	8	8	N	8	5
08/01/1999	9	9	8	N	8	5