

Bridge 03939 Inspection Report



Latitude:34.36447, Longitude:-91.23585

Route:1 Section:05 Log:7.36

Arnold Road ID:1x1x5xA, Arnold Log mile:7.313

District 02, 1 - Arkansas County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

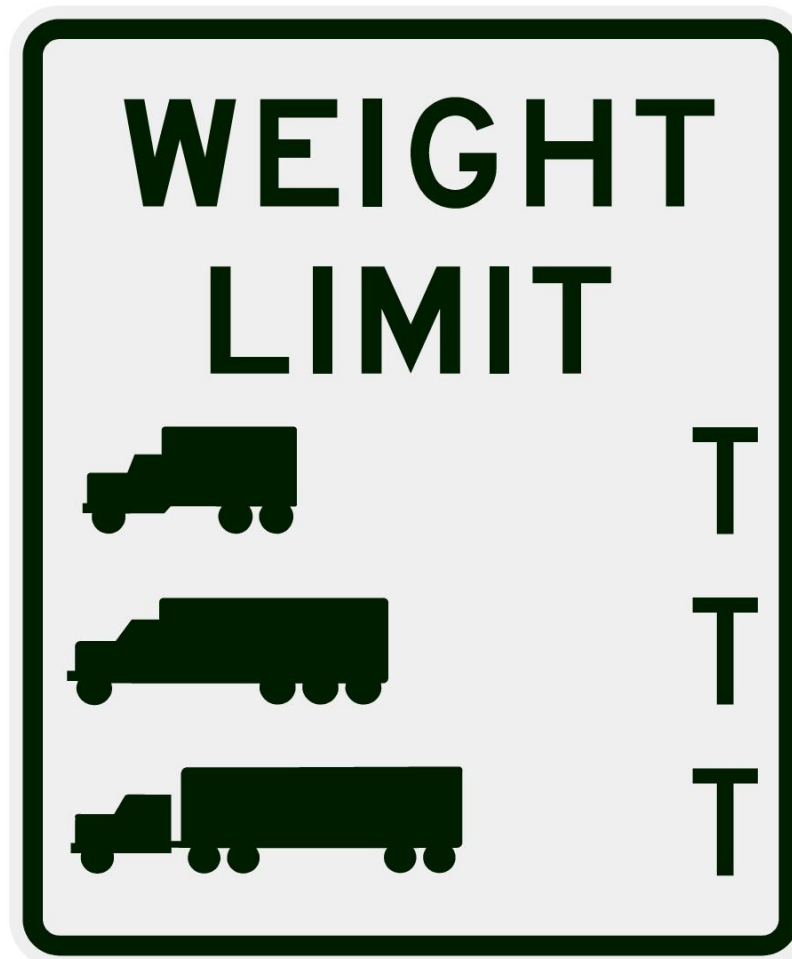
Bridge Posting Information

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

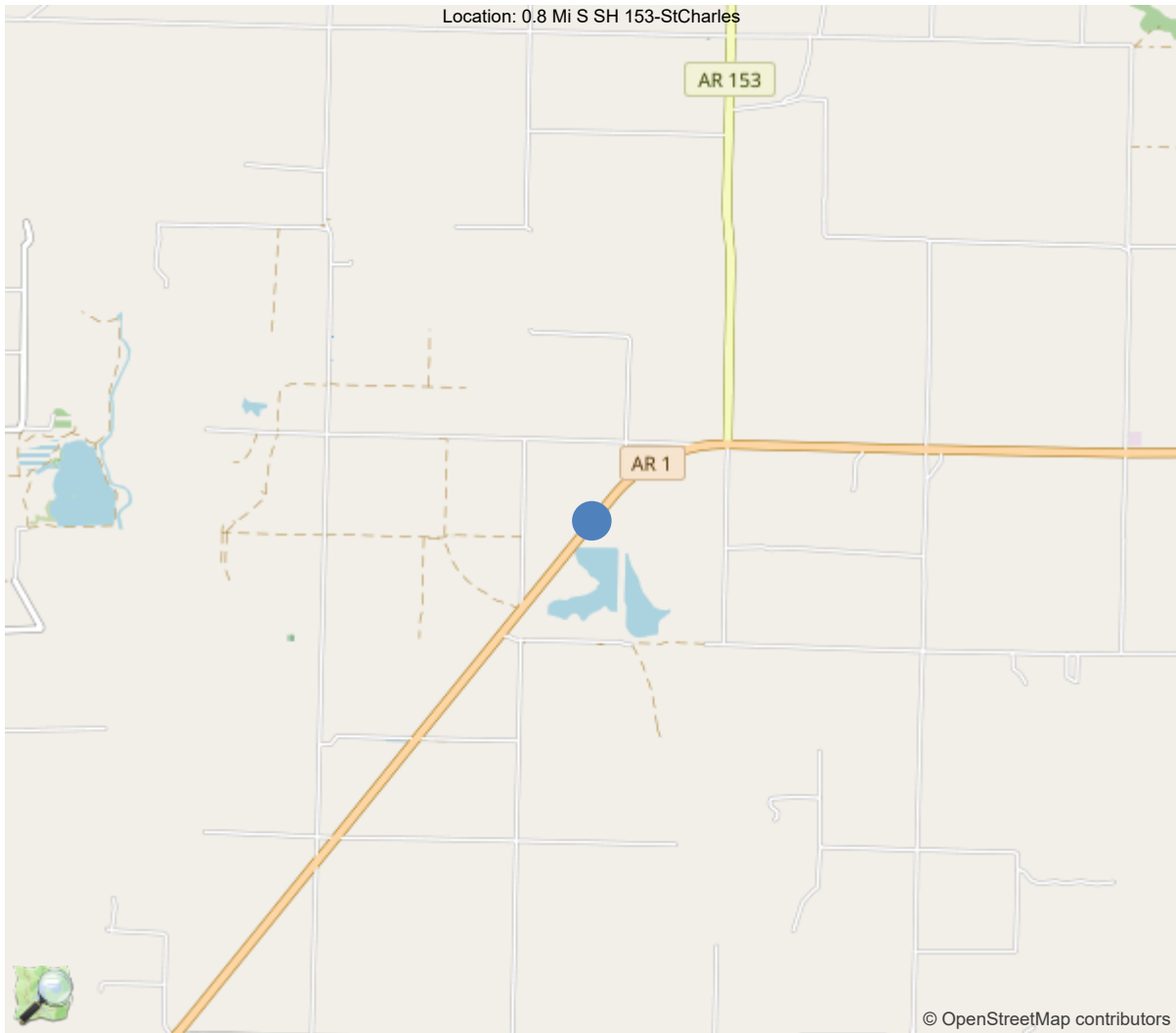
70 - Bridge Posting: 5 - Equal to or above legal loads

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

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



30"x36" AR



34.36447, -91.23585

National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	03939
(5) Inventory Route	1
(2) Highway Agency District	02 - District 02
(3) County Code	1 - Arkansas County
(4) Place Code	0
(6) Features Intersected	Big Creek
(7) Facility Carried	SH 1-05 LM 7.36
(9) Location	0.8 Mi S SH 153-StCharles
(11) Mile Point	7.36 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000001050
(16) Latitude	34.3644697328367
(17) Longitude	-91.2358516013622
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	11
Material	1 - Concrete
Type	1 - Slab
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	3
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	6 - Bituminous
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1967
(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	1500
(30) Year of ADT	2018
(109) Truck ADT	27 %
(19) Bypass, Detour Length	14 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	30 ft
(49) Structure Length	90 ft
(50) Curb or Sidewalk Width	
Left	1.5 ft
Right	1.5 ft
(51) Bridge Roadway Width Curb to Curb	28 ft
(52) Deck Width Out to Out	33.5 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	27.9 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	5 - None present but re-evalua
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	1
(26) Functional Class	2 - Rural Principal Arterial -
(100) Defense Highway	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 structu
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	7
(59) Superstructure	7
(60) Substructure	7
(61) Channel & Channel Protection	7
(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	5
(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	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	1703
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			03/06/2023
(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		
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			

Team Lead: Sharon Hooks, Inspection Date: 03/06/2023

Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	03939
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	1 - Arkansas County
B.L.03 Place Code	00000 - N/A
B.L.04 Highway Agency District	02 - District 02
B.L.05 Latitude	34.3644697328367
B.L.06 Longitude	-91.2358516013622
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: Sharon Hooks, Inspection Date: 03/06/2023

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 #03939(Routine)

SH 1-05 LM 7.36 over Big Creek

Location: 0.8 Mi S SH 153-StCharles

Team Lead: Sharon Hooks **Inspection Date:** 03/06/2023

Inspection Notes

General Observation

Bridge is logged from south to north (southwest to northeast).

A-55 - Deck Washing Needed

Gutterlines - both sides: Build-up of sand/gravel, dirt, and other debris - restricting stormwater from flowing off bridge.

A-59 - Joint Repair Needed

Pourable joints are filled with asphalt and debris.

A-61 - Polymer Overlay Advised

Deck has asphalt overlay.

National Bridge Element Quantities and Notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	2700	2689	10	1	0
1080	Delamination/Spall/Patched Area	SF	10	0	10	0	0
1090	Exposed Rebar	SF	1	0	0	1	0
510	Wearing Surfaces	SF	2160	2130	15	15	0
3210	Delam/Spall/Patched Area/Pothole	SF	30	0	15	15	0
(38) Deck (sonovoids): 30' wide (1'-9" STEP-UP each side) x 90' long = 2700 sqft. Wearing surface (thin asphalt/chip seal – latest layer added in April 2019): 24' wide x 90' long = 2160 sqft. Wearing surface: Scattered small- to moderate-sized spalls (potholes). Gutterlines: Some scattered light scaling with a small spall (with some steel exposed) at drain @ Span 1 right – 1 sqft exposed rebar. Soffit – *Spans 1-3: Delaminations and spalls on outside edges of deck around drains – left and right sides, worse on Spans 1 & 2 right side. (Some minor rust and section loss to reinforcing steel at these locations.) *Repaired/patched by state forces – 10 sqft CS2 patch.							
215	Reinforced Concrete Abutment	LF	76	76	0	0	0
(215) Abutments: 30'-6" = 31' each (with 3'-6" wings each corner) / Bents 1 & 4. Bent 4: Small areas (tie-rod holes) have recently been filled/grouted over.							
227	Reinforced Concrete Pile	EA	10	0	5	5	0
1190	Abrasion/Wear (PSC/RC)	EA	10	0	5	5	0
(227) Piling: 5 per bent \ Bents 2 & 3. All pile have abrasion at water/ground-line, worse on Bent 2.							
234	Reinforced Concrete Pier Cap	LF	62	48	10	4	0
1080	Delamination/Spall/Patched Area	LF	10	0	10	0	0
1090	Exposed Rebar	LF	4	0	0	4	0
(234) Caps: 30'-6" = 31" each / Bents 2 & 3. Bent 2: Bottom face on left and right ends have delamination/spalling/exposed rebar with section loss – 4' CS3 exposed rebar. Bent 3: Numerous areas that have sound patches, mainly on back face – 10' CS2 patch.							
301	Pourable Joint Seal	LF	136	0	0	112	24
2320	Seal Adhesion	LF	24	0	0	0	24
2350	Debris Impaction	LF	112	0	0	112	0
(301) Joint: 34' each / Bents 1-4. Joint has been sealed over/overlaid - 112' CS3 debris impaction. Joint material had lost adhesion and fallen out on curbs.							
330	Metal Bridge Railing	LF	180	180	0	0	0
515	Steel Protective Coating	SF	378	0	378	0	0



Asset #03939(Routine)

SH 1-05 LM 7.36 over Big Creek

Location: 0.8 Mi S SH 153-StCharles

Team Lead: Sharon Hooks Inspection Date: 03/06/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
3410	Chalking (Steel Protective Coatings) (330) Railing: 90' each side. Coating: 2.1 square feet per linear feet of railing. Concrete rail topped with metal rail and posts. Railing is dull and has no luster or shine.	SF	378	0	378	0	0
331	Reinforced Concrete Bridge Railing (331) Railing: 90" each side. Concrete rail topped with metal rail and posts.	LF	180	180	0	0	0

Inspection Photos and Notes



Elevation.



Bent 3 joint seal has debris impaction.



Substructure.



Under view.



Bent 4 abutment has minor erosion.



Span 2 right at midspan at drain opening has cracking and delams.



Bent 3 right has cracking delams and spalls.



Deck over view.



Approach



Wearing surface - Span 1 left: Spalling (potholes)

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-65 - Clogged deck drains?	
A-66 - Approach minor pothole/leveling needed	

A-54 - Sealable Deck Cracks

A-55 - Deck Washing Needed

Gutterlines - both sides: Build-up of sand/gravel, dirt, and other debris - restricting stormwater from flowing off bridge.

A-56 - Joint Cleaning/Flushing Needed



Asset #03939(Routine)

SH 1-05 LM 7.36 over Big Creek

Location: 0.8 Mi S SH 153-StCharles

Team Lead: Sharon Hooks Inspection Date: 03/06/2023

A-57 - Girder End and Bearing Painting Needed

A-58 - Cap Cleaning/Flushing Needed

A-59 - Joint Repair Needed

Pourable joints are filled with asphalt and debris.

A-60 - Full Girder Painting Needed

A-61 - Polymer Overlay Advised

Deck has asphalt overlay.

A-62 - Hydro and LMC Advised

A-63 - Missing/Incorrect Log Mile Signage

A-64 - Vegetation Removal Requested

A-65 - Clogged deck drains?



Asset #03939(Routine)

SH 1-05 LM 7.36 over Big Creek

Location: 0.8 Mi S SH 153-StCharles

Team Lead: Sharon Hooks Inspection Date: 03/06/2023

A-66 - Approach minor pothole/leveling needed



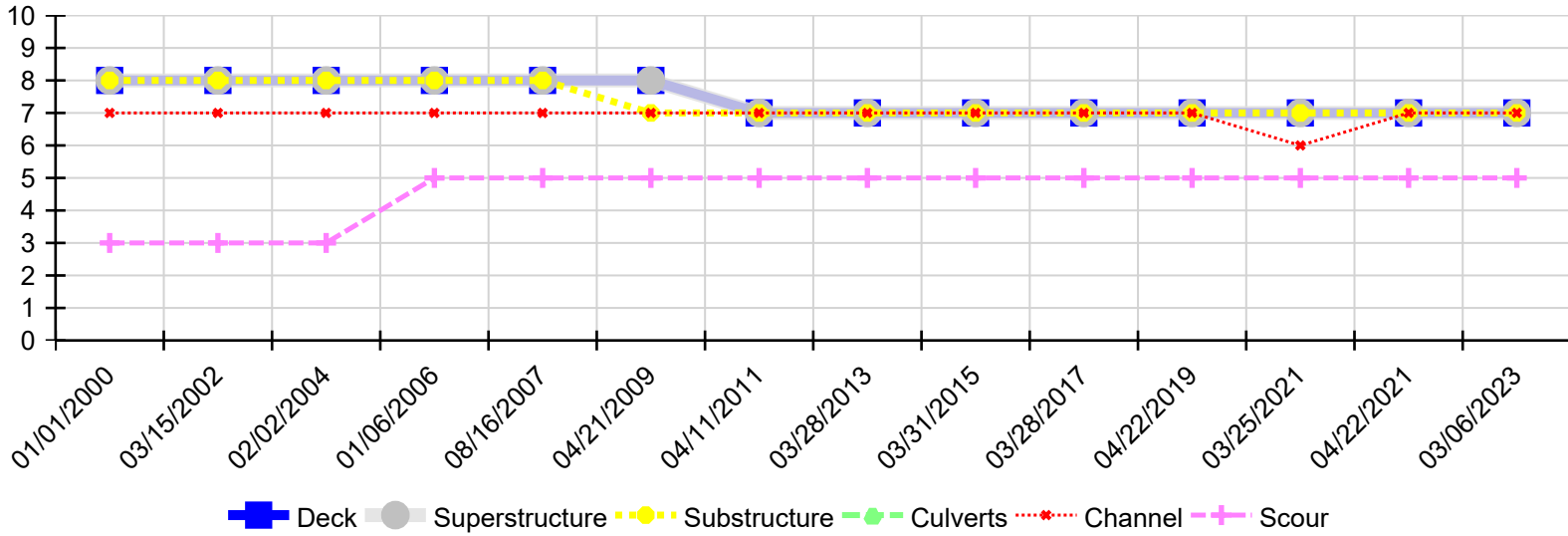
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Location: 0.8 Mi S SH 153-StCharles

Team Lead: Sharon Hooks Inspection Date: 03/06/2023

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
03/06/2023	7	7	7	N	7	5
04/22/2021	7	7	7	N	7	5
03/25/2021	7	7	7	N	6	5
04/22/2019	7	7	7	N	7	5
03/28/2017	7	7	7	N	7	5
03/31/2015	7	7	7	N	7	5
03/28/2013	7	7	7	N	7	5
04/11/2011	7	7	7	N	7	5
04/21/2009	8	8	7	N	7	5
08/16/2007	8	8	8	N	7	5
01/06/2006	8	8	8	N	7	5
02/02/2004	8	8	8	N	7	3
03/15/2002	8	8	8	N	7	3
01/01/2000	8	8	8	N	7	3