



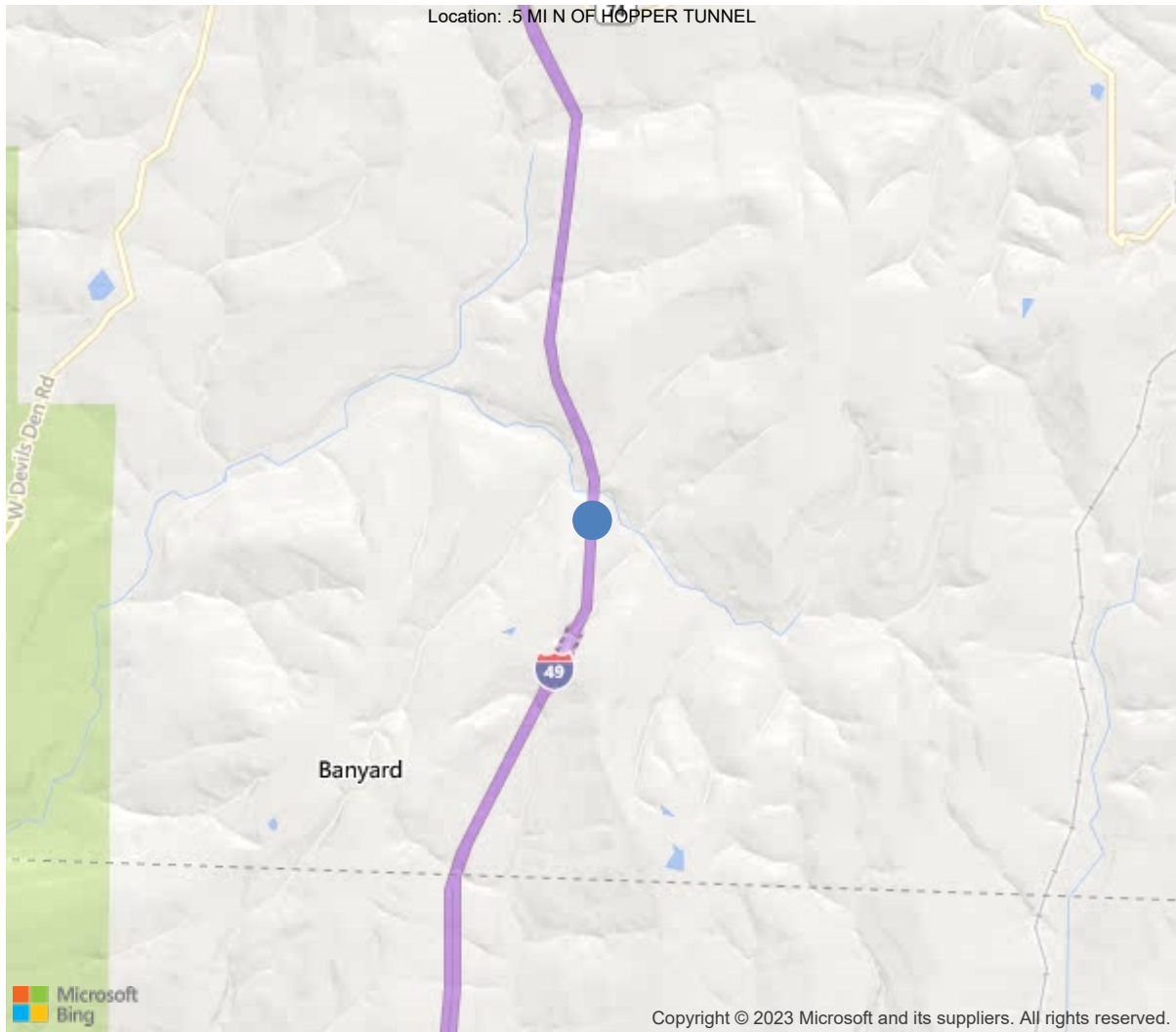
Latitude:35.77776, Longitude:-94.18640

Route:49 Section:28 Log:42.01

Arnold Road ID:72x49x28xB, Arnold Log mile:49.317

District 04, 143 - Washington County

Owner: 1 - State Highway Agency



35.77776, -94.18640



Asset #A6479(Routine)

I 49 SB LNS over BLACKBURN CREEK

Location: .5 MI N OF HOPPER TUNNEL

Team Lead: Lee Swan, Inspection Date: 04/14/2022

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	A6479
(5) Inventory Route	1
(2) Highway Agency District	04 - District 04
(3) County Code	143 - Washington County
(4) Place Code	0
(6) Features Intersected	BLACKBURN CREEK
(7) Facility Carried	I 49 SB LNS
(9) Location	.5 MI N OF HOPPER TUNNEL
(11) Mile Point	42.01 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000049080
(16) Latitude	35.77776
(17) Longitude	-94.1864
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	42
Material	4 - Steel continuous
Type	2 - Stringer/Multi-beam or girder
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	10
(46) No. of Approach Spans	0
(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	1 - Epoxy Coated Reinforcing
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	10500
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	180 ft
(49) Structure Length	1512 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	41.3 ft
(52) Deck Width Out to Out	44.2 ft
(32) Approach Roadway Width (W/Shoulders)	42 ft
(33) Bridge Median	3 - Closed median wit
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99 ft
(47) Inventory Route Total Horiz Clear	42.3 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	1
(26) Functional Class	1 - Rural Principal Arterial -
(100) Defense Highway	1 - The inventory route is on
(101) Parallel Structure	L - The left structure of para
(102) Direction of Traffic	1 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	1 - The inventory route is par
(20) Toll	3 - On free road. The structu
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	7
(59) Superstructure	7
(60) Substructure	7
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	6 - MS 18+Mod / HS 20+Mod
(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	7
(68) Deck Geometry	7
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	9
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	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	11955
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	04/14/2022		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
* 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.			



Asset #A6479(Routine)

District: 04, County: 143 - Washington County

Team Lead: Lee Swan, Inspection Date: 04/14/2022

General Observation

Due to construction of median wall on I-49 Job # BB0409. We were unable to use inspection vehicle for this bridge inspection.

A-46 - Asset Files

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Asset #A6479(Routine)

I 49 SB LNS over BLACKBURN CREEK

Location: .5 MI N OF HOPPER TUNNEL

Team Lead: Lee Swan, Inspection Date: 04/14/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	66779	51340	3770	11669	0
1080	Delamination/Spall/Patched Area	SF	4	0	4	0	0
1120	Efflorescence/Rust Staining	SF	427	0	427	0	0
1130	Cracking (RC and Other)	SF	15008	0	3339	11669	0
(12) 04/21/2022-RLS & ADC - Large longitudinal and transverse cracks with the past seal failed. Scattered minor spalls.							
107	Steel Open Girder/Beam	LF	6048	6012	36	0	0
1000	Corrosion	LF	24	0	24	0	0
1020	Connection	LF	12	0	12	0	0
515	Steel Protective Coating	SF	96180	94668	1512	0	0
3430	Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings)	LF	1512	0	1512	0	0
(107) 04/21/2022-RLS & ADC - Girder ends at joints are beginning to corrode due to failure of the protective coating.							
(515-107) 04/21/2022-RLS & ADC - There is a granular texture on the bottom of the bottom flanges.							
210	Reinforced Concrete Pier Wall	LF	126	112	14	0	0
1130	Cracking (RC and Other)	LF	14	0	14	0	0
(210) 04/21/2022-RLS & ADC - All pier walls have minor vertical hairline cracks.							
215	Reinforced Concrete Abutment	LF	141	56	53	32	0
1080	Delamination/Spall/Patched Area	LF	1	0	0	1	0
1090	Exposed Rebar	LF	2	0	0	2	0
1120	Efflorescence/Rust Staining	LF	5	0	5	0	0
1130	Cracking (RC and Other)	LF	77	0	48	29	0
(215) 04/21/2022-RLS & ADC - Bent 11, 2 large spalls, on left side. Large horizontal cracks across the face of the bridge seat.							
234	Reinforced Concrete Pier Cap	LF	387	304	74	9	0
1080	Delamination/Spall/Patched Area	LF	2	0	0	2	0
1090	Exposed Rebar	LF	1	0	0	1	0
1120	Efflorescence/Rust Staining	LF	14	0	11	3	0
1130	Cracking (RC and Other)	LF	66	0	63	3	0

Team Lead: Lee Swan, **Inspection Date:** 04/14/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(234) 04/21/2022-RLS & ADC - All caps have vertical cracks. Bent 7 has a horizontal crack on the left, ahead side. Bent 8, efflorescence, spall with exposed rebar.							
302	Compression Joint Seal	LF	83	33	0	50	0
2310	Leakage	LF	20	0	0	20	0
2330	Seal Damage	LF	30	0	0	30	0
(302) 04/21/2022-RLS & ADC - Joints are leaking and have damage.							
303	Assembly Joint with Seal	LF	83	73	10	0	0
2350	Debris Impaction	LF	10	0	10	0	0
(303) 04/21/2022-RLS & ADC - Minor debris impaction on the ends of the joints. Maintenance has cut out part of the bottom of the joints in the bays to reinforce the joints.							
310	Elastomeric Bearing	EA	52	50	2	0	0
2220	Alignment	EA	2	0	2	0	0
(310) 04/21/2022-RLS & ADC - Span 2 bent 3 bearings are pushing forward.							
321	Reinforced Concrete Approach Slab	SF	2739	1834	840	65	0
1080	Delamination/Spall/Patched Area	SF	14	0	0	14	0
1090	Exposed Rebar	SF	1	0	0	1	0
1130	Cracking (RC and Other)	SF	890	0	840	50	0
(321) 04/21/2022-RLS & ADC - Both slabs have cracks and spalls.							
331	Reinforced Concrete Bridge Railing	LF	3024	1459	1564	1	0
1080	Delamination/Spall/Patched Area	LF	1	0	0	1	0
1120	Efflorescence/Rust Staining	LF	16	0	16	0	0
1130	Cracking (RC and Other)	LF	1520	0	1520	0	0
7000	Damage	LF	28	0	28	0	0
(331) 04/21/2022-RLS & ADC - Both walls have cracks. Bent 3, large spall in bridge rail. Minor damage in the left rail.							

I 49 SB LNS over BLACKBURN CREEK

Location: .5 MI N OF HOPPER TUNNEL

Team Lead: Lee Swan, **Inspection Date:** 04/14/2022

Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	66779	51340	3770	11669	0
1080	Delamination/Spall/Patched Area	SF	4	0	4	0	0
1120	Efflorescence/Rust Staining	SF	427	0	427	0	0
1130	Cracking (RC and Other)	SF	15008	0	3339	11669	0
(12) 04/21/2022-RLS & ADC - Large longitudinal and transverse cracks with the past seal failed. Scattered minor spalls.							

I 49 SB LNS over BLACKBURN CREEK

Location: .5 MI N OF HOPPER TUNNEL

Team Lead: Lee Swan, **Inspection Date:** 04/14/2022

Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	6048	6012	36	0	0
1000	Corrosion	LF	24	0	24	0	0
1020	Connection	LF	12	0	12	0	0
515	Steel Protective Coating	SF	96180	94668	1512	0	0
3430	Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings)	LF	1512	0	1512	0	0
(107) 04/21/2022-RLS & ADC - Girder ends at joints are beginning to corrode due to failure of the protective coating.							
(515-107) 04/21/2022-RLS & ADC - There is a granular texture on the bottom of the bottom flanges.							

I 49 SB LNS over BLACKBURN CREEK

Location: .5 MI N OF HOPPER TUNNEL

Team Lead: Lee Swan, **Inspection Date:** 04/14/2022

Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
210	Reinforced Concrete Pier Wall	LF	126	112	14	0	0
1130	Cracking (RC and Other)	LF	14	0	14	0	0
(210) 04/21/2022-RLS & ADC - All pier walls have minor vertical hairline cracks.							
215	Reinforced Concrete Abutment	LF	141	56	53	32	0
1080	Delamination/Spall/Patched Area	LF	1	0	0	1	0
1090	Exposed Rebar	LF	2	0	0	2	0
1120	Efflorescence/Rust Staining	LF	5	0	5	0	0
1130	Cracking (RC and Other)	LF	77	0	48	29	0
(215) 04/21/2022-RLS & ADC - Bent 11, 2 large spalls, on left side. Large horizontal cracks across the face of the bridge seat.							
234	Reinforced Concrete Pier Cap	LF	387	304	74	9	0
1080	Delamination/Spall/Patched Area	LF	2	0	0	2	0
1090	Exposed Rebar	LF	1	0	0	1	0
1120	Efflorescence/Rust Staining	LF	14	0	11	3	0
1130	Cracking (RC and Other)	LF	66	0	63	3	0
(234) 04/21/2022-RLS & ADC - All caps have vertical cracks. Bent 7 has a horizontal crack on the left, ahead side. Bent 8, efflorescence, spall with exposed rebar.							



Asset #A6479(Routine)

I 49 SB LNS over BLACKBURN CREEK

Location: .5 MI N OF HOPPER TUNNEL

Team Lead: Lee Swan, Inspection Date: 04/14/2022

Culvert

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4



Inventory



North side approach slab, large cracks.



North side approach slab, cracking.



Span 8, large longitudinal crack.



Span 6, large cracks.



Span 6, large diagonal crack.



Span 6, large cracks at centerline.



Span 6 diagonal cracks



Span 5, missing plowable marker.



Left bridge rail span 4, 10' damage.



Span 4, large transverse crack.



Span 3, large longitudinal crack



Typical deck



Span 3, large longitudinal crack.



Span 3, delam at centerline.



Bent 3, large spall in bridge rail.



Typical concrete bridge rail.



Span 2, large longitudinal crack.



Span 1, cracking in the deck



Bent 1 joint, damage.



Map cracking southern approach slab.



Left lane of southern approach slab, large spalls.



Span 3 girder 3 at bent 3, protective coating failing.



Bent 3 span 3 girder 4, failure of the protective coating.



Bent 3 ahead side near girder 4, large horizontal cracks, rust staining and efflorescence.



Typical soffit



Span 6 girder 4, flaking in the protective coating.



Bent 6 backside face of cap, long horizontal crack from left edge to middle of bay 3.



Left end of bent 6, cracking.



Span 6, typical condition of the protective coating on the bottom of the bottom flange.



Span 7, bent 8 girder 3, protective coating has failed and there is minor section loss to the lower web.



Bent 8 left side, large spall with exposed rebar with section loss.



Bent 8 girder 3, corrosion.



Bent 8 bay 3, 4' of the trough for the assembly joint has been removed by maintenance forces to reinforce the finger joint. Common.



Bent 11 , large horizontal cracks in the face of the bridge seat.



Bent 11 bearing 2, protective coating failing.



Bent 11 girder 4, the protective coating is failing and there is minor pitting in the lower web.



Elevation



Elevation

Maintenance Needs

Date Reported: 05/03/2010

Priority: C - Important

Type of Work: (Inactive) (Inactive) 1 - Clean

Status: Monitor

Component: Deck

Deficiency Description

DECK SURFACE:

MFF & JRT - 04/04/2018 - dirt and debris in gutter areas worst case left edge of structure.

Heavy amounts of sand in gutter lines from winter operations at time of inspection.

Remarks



Span 5, typical debris in drains.



Dirt an debris in gutter.



Deck drains full of debris typical throughout structure.

Maintenance Needs

Date Reported: 06/21/2012

Priority: C - Important

Type of Work: Repair (General)

Status: Open

Component:

Deficiency Description

APPROACH SLABS:

RLS & ADC-04/20/2022- Numbers large spall and failing patches in the south approach slab. Change priority from "D" to "C".

MFF & JRT - 04/04/2018 - no apparent change since last inspection.

Abutment 1, Minor cracking. 3 spalls in the left lane 7 square feet in size.

Abutment 2, Minor spalls at the beginning of slab in the left lane.

North Approach: The right lane has an open transverse crack.

Remarks



North side approach slab, large cracks.



Map cracking southern approach slab.



Left lane of southern approach slab, large spalls.



North approach right lane approximately 1" settlement
with 20' CS-3 cracking.



North approach sealable cracking.





North approach slab sealed cracks.

Maintenance Needs

Date Reported: 05/03/2010

Priority: D- Routine

Type of Work: Repair (General)

Status: Open

Component: Element

Deficiency Description

CONCRETE BRIDGE RAIL & MEDIAN WALL:

RLS & ADC- 04/21/2020- Cracks, map cracking and efflorescence throughout. Bent 3, large spall at the expansion joint.

MFF & JRT - 04/04/2018 - maintenance force has made repairs to parapet walls since last inspection.

Vertical efflorescence cracks and minor spalls.

Efflorescence cracks on the backside of the bridge rail.

Map cracking in scattered locations.

Added on 6/11/14, TJB

Pier 2, Lt: Large spall with rebar exposed in outside of bridge rail.

Remarks

Sand blasting is being done on I-49 bridge parapet walls.

Job # BB04049



Bent 3, large spall in bridge rail.



Typical concrete bridge rail.



Pier 2 no spall visible.





Typical cracking throughout barrier walls.



Span 6 center barrier wall collision damage.

Maintenance Needs

Date Reported: 05/03/2010

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Channel

Deficiency Description

Erosion

MFF & JRT - 04/04/2018 - embankment erosion still exist at this inspection.

Heavy erosion was occurring to the Rt. of Span 2 and 3 and along the centerline at Span 3 and 4.

Abutment 2 North abutment: Minor embankment erosion.

Remarks



Bent 11, cracks and embankment settlement.



Bent 2 - 4 embankment erosion



North Abutment embankment erosion.



Bent 5



Bent 4 erosion.



Bent 4 column 2 erosion .

Maintenance Needs

Date Reported: 06/21/2012

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

R/C CAPS:

RLS & ADC-04/20/2020- Bent 8 has a large spall with exposed rebar.

MFF & JRT - 04/04/2018 - cracks are still present no apparent change since last inspection.

All caps have shrinkage cracks on the top face.

North abutment: Map cracking on the Lt. end of the cap.

Pier 1: 7 vertical hairline cracks.

Pier 2: 2 vertical hairline cracks. Minor debris on the cap. Horizontal efflorescence crack in center of cap.

Pier 3: 4 vertical hairline cracks.

Pier 4: 7 vertical hairline cracks.

Pier 5: 6 vertical hairline cracks.

Pier 6: 4 vertical hairline cracks.

Pier 7: 19 vertical hairline cracks. Minor debris on the cap. End of cap has efflorescence map cracking.

Pier 8: 4 vertical hairline cracks.

Pier 9: 12 vertical hairline cracks.

Remarks



Bent 6 backside face of cap, long horizontal crack from left edge to middle of bay 3.



Left end of bent 6, cracking.



Bent 8 left side, large spall with exposed rebar with section loss.



Bent 2 and map Cracking with efflorescence in face of cap.



Bent 6 and left pier wall Spall with exposed reinforcing steel.



Bent 3 Hairline Cracking in face of cap.



South Abutment left spall with exposed reinforcing steel.

Maintenance Needs

Date Reported: 06/21/2012

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

Abutments:

MFF & JRT - 04/04/2018 - no apparent change since last inspection.

Vertical efflorescent cracks in abutment 1 and 2.

Open cracks on the right end of abutment 2.

Added 4/21/2016 KRM 38450

Remarks



Bent 11 , large horizontal cracks in the face of the bridge seat.



Bent 11 right side (abutment): map cracking and horizontal crack



South Abutment Cracking in back wall with efflorescence.



South Abutment left spall with exposed reinforcing steel.



Bent 11 left side: horizontal and map cracking.



Asset #A6479(Routine)

I 49 SB LNS over BLACKBURN CREEK

Location: .5 MI N OF HOPPER TUNNEL

Team Lead: Lee Swan, Inspection Date: 04/14/2022

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	



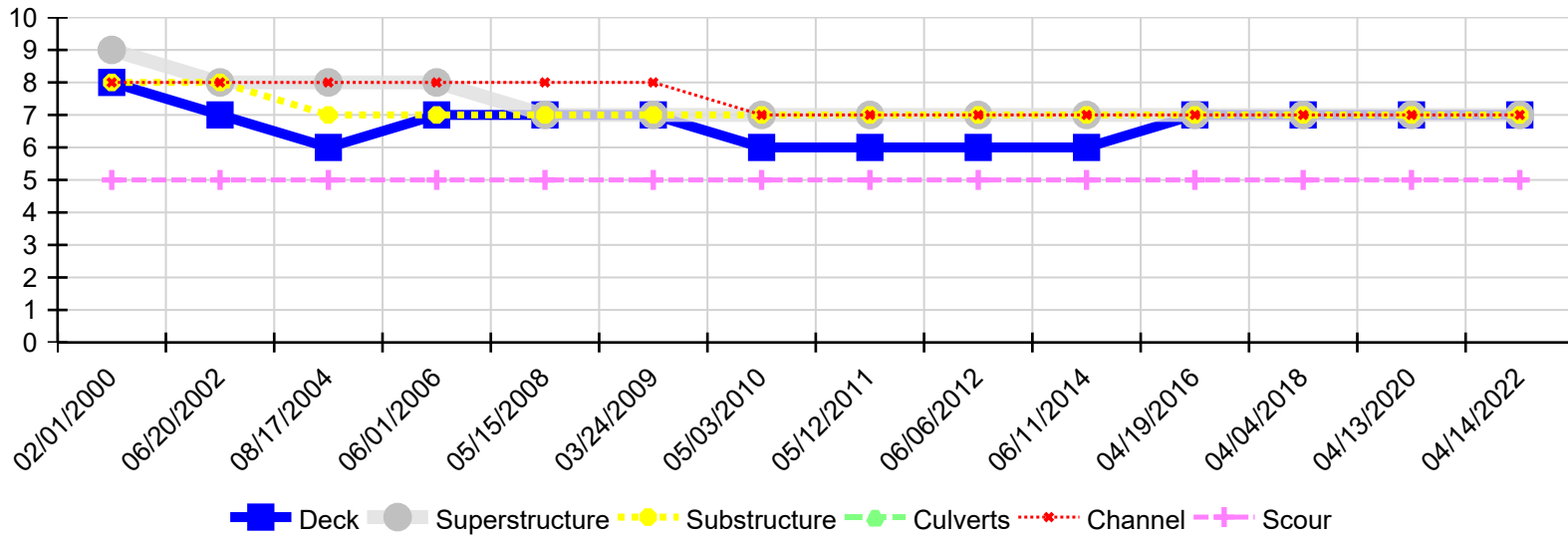
Asset #A6479(Routine)

I 49 SB LNS over BLACKBURN CREEK

Location: .5 MI N OF HOPPER TUNNEL

Team Lead: Lee Swan, Inspection Date: 04/14/2022

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
04/14/2022	7	7	7	N	7	5
04/13/2020	7	7	7	N	7	5
04/04/2018	7	7	7	N	7	5
04/19/2016	7	7	7	N	7	5
06/11/2014	6	7	7	N	7	5
06/06/2012	6	7	7	N	7	5
05/12/2011	6	7	7	N	7	5
05/03/2010	6	7	7	N	7	5
03/24/2009	7	7	7	N	8	5
05/15/2008	7	7	7	N	8	5
06/01/2006	7	8	7	N	8	5
08/17/2004	6	8	7	N	8	5
06/20/2002	7	8	8	N	8	5
02/01/2000	8	9	8	N	8	5