



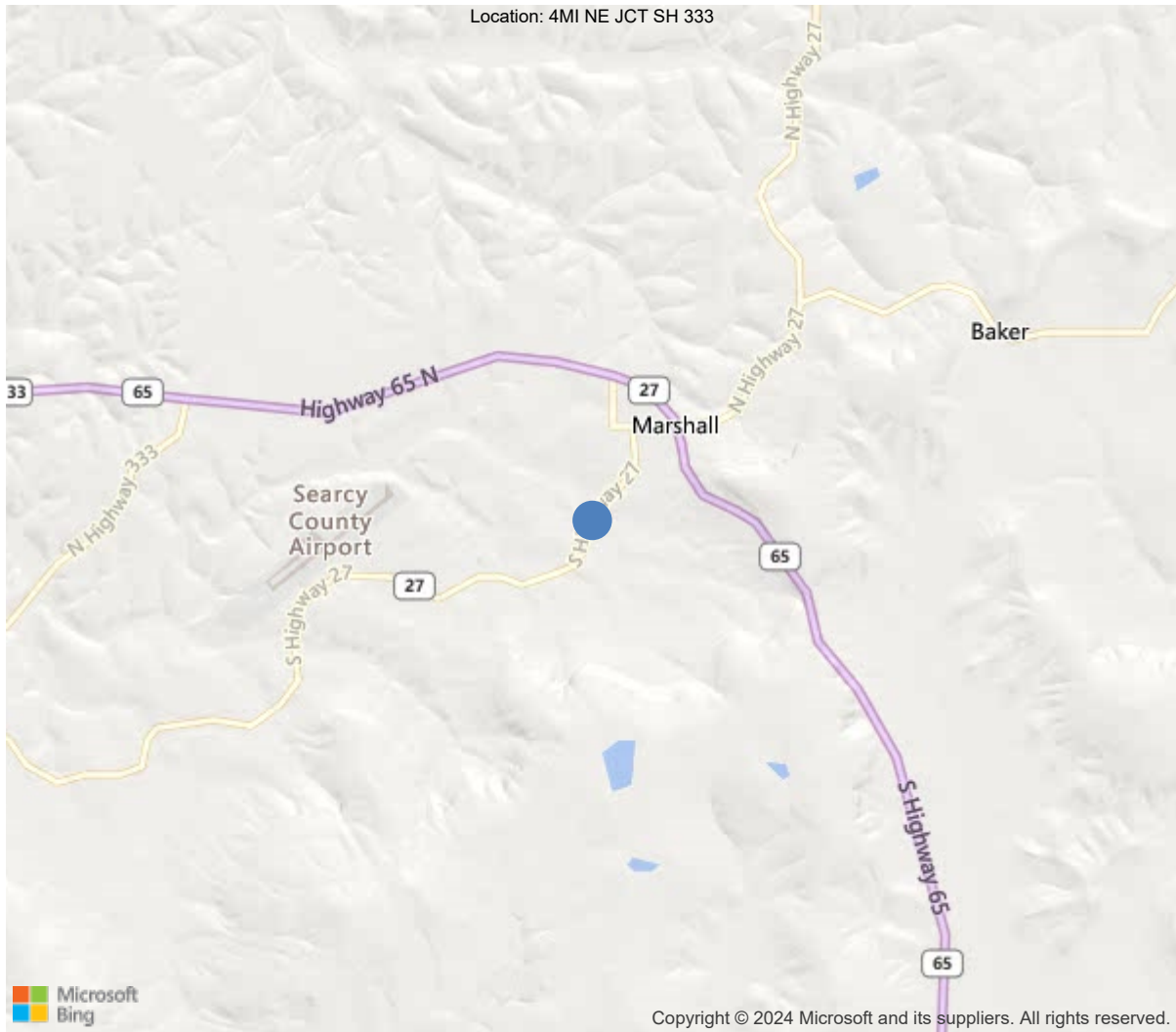
Latitude:35.90022, Longitude:-92.63329

Route:27 Section:16 Log:22.615

Arnold Road ID:64x27x16xA, Arnold Log mile:22.507

District 09, 129 - Searcy County

Owner: 1 - State Highway Agency



35.90022, -92.63329



Asset #M0673(Record Change)

SH 27 Searcy over Forest Creek

Location: 4MI NE JCT SH 333

Team Lead: Benjamin Smith, Inspection Date: 03/02/2023

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M0673
(5) Inventory Route	1
(2) Highway Agency District	09 - District 09
(3) County Code	129 - Searcy County
(4) Place Code	44300
(6) Features Intersected	Forest Creek
(7) Facility Carried	SH 27 Searcy
(9) Location	4MI NE JCT SH 333
(11) Mile Point	22.615 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.90022
(17) Longitude	-92.63329
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	122
Material	1 - Concrete
Type	22 - Channel beam
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	2
(46) No. of Approach Spans	0
(107) Deck Structure Type	2 - Concrete Precast Panels
(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	1956
(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	314
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	19 ft
(49) Structure Length	38 ft
(50) Curb or Sidewalk Width	
Left	0.7 ft
Right	0.7 ft
(51) Bridge Roadway Width Curb to Curb	23.6 ft
(52) Deck Width Out to Out	25 ft
(32) Approach Roadway Width (W/Shoulders)	24 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	25.6 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	7 - Rural Major 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	5
(60) Substructure	6
(61) Channel & Channel Protection	5
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	38
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	23
(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	0 - Inspected feature does not meet
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	0 - Inspected feature does not meet
(113) Scour Critical Bridges	4 - Bridge foundations determined to
PROPOSED IMPROVEMENTS	
(75) Type of Work	35 - Bridge rehabilitation bec
(76) Length of Structure Improvement	38 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 42
(97) Year of Improvement Cost Estimate	1998
(114) Future ADT	377
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	04/26/2022		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	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>			



Asset #M0673(Record Change)

District: 09, County: 129 - Searcy County

Team Lead: Benjamin Smith, Inspection Date: 03/02/2023

General Observation

04/26/2022 WNR & DBM: Routine and underwater type II inspections conducted this date. See notes for documentation.

Structure is logged from SW to NE, and is accessible from the channel.

The U W type 2 frequency is 12 months due to item #113 being less than 5 due to scour at abutment #2.

No bat activity was noted.



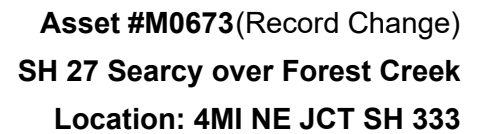
Asset #M0673(Record Change)

SH 27 Searcy over Forest Creek

Location: 4MI NE JCT SH 333

Team Lead: Benjamin Smith, Inspection Date: 03/02/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	893	859	30	4	0
1120	Efflorescence/Rust Staining	SF	19	0	15	4	0
1130	Cracking (RC and Other)	SF	15	0	15	0	0
510	Wearing Surfaces	SF	893	825	68	0	0
3220	Crack (Wearing Surface)	SF	68	0	68	0	0
<p>(16) 04/26/2022 WNR & DBM:</p> <p>Driving surface - Deck wearing surface has reflective cracking over the joints and abutments due to an indiscriminate overlay. The driving lanes are showing minor longitudinal and transverse cracks in the wearing surface. The left beginning curb of span #2 has a spall with rebar exposed over a large area of map cracking with efflorescence.</p> <p>Under surface - the deck has 15' of cracking showing in the under surface, some with minor efflorescence.</p>							
110	Reinforced Concrete Open Girder/Beam	LF	266	173	3	90	0
1080	Delamination/Spall/Patched Area	LF	19	0	0	19	0
1090	Exposed Rebar	LF	69	0	0	69	0
1120	Efflorescence/Rust Staining	LF	2	0	0	2	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
<p>(110) 04/26/2022 WNR & DBM:</p> <p>Span #1 has 34' total of spalls with exposed rebar. RCCB #1 has 4' of spalling with exposed rebar on the right stem with 6' of delamination on the right stem.</p> <p>RCCB #2 has 12' of spalling with exposed rebar on the left stem. RCCB #3 has 2' of delamination on the left stem. RCCB #4 has 7' of exposed rebar on the right stem. RCCB #5 has minor vertical hairline flexure cracking. RCCB #6 has 2' of spalling with exposed rebar on the left stem and 6' of spalling with exposed rebar on the right stem. RCCB #7 has 2' of spalling with exposed rebar on the left stem with minor insignificant spalling on the left and right stems.</p> <p>Span #2- RCCB #1 has map cracking with efflorescence on the diaphragm over pier wall #2 and the outside face of the channel beam, and in the deck undersurface near the end of the span. The right stem has 2' of delamination. RCCB #2 has 10' of spalling with exposed rebar on the left stem. RCCB #3 has 2' of spalling with exposed rebar and 4' of delamination on the left stem, the right stem has 2' of spalling with exposed rebar. RCCB #4 has 14' of spalling with exposed rebar on the right stem with 1' of delamination. The left stem has 4' of spalling with exposed rebar and 3' of delimitation. RCCB #5 has 1' of spalling with exposed rebar on the left stem and 1' of delamination on the right stem. RCCB #6 has 6' of spalling with exposed rebar on the left stem and 3' of spalling with exposed rebar on the right stem. RCCB #7 has minor insignificant spalling on the right stem.</p> <p>Deck: 16' of Girder #1 top flange is fully exposed extending from abutment #2 toward center span.</p> <p>4</p> <p>9 steel</p>							
210	Reinforced Concrete Pier Wall	LF	125	105	18	2	0
1080	Delamination/Spall/Patched Area	LF	2	0	0	2	0
1130	Cracking (RC and Other)	LF	18	0	18	0	0



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<p>(210) 04/26/2022 WNR & DBM: Pier wall #1 - (abt #1) has 1' vertical full height hairline crack at the mid section. The pier wall #1 footing has cover at all locations.</p> <p>Pier wall #2 - has 8' of hairline vertical cracking. The top of the span #2 side of the footing is exposed for 18' with no vertical face exposed. The span #1 side of the footing has cover at this inspection.</p> <p>Pier wall #3 - (abt #2) has 9' of vertical hairline cracking and 2' of spalling with no rebar exposed on the right wing wall. Pier wall #3 has up to 17" of undermining for a length of 15' with the deepest undermining at the midsection.(this area has been filled in with stream bed material build up). The undermining does not extend past the 24" spread footing. 22" of the vertical face of the spread footing is exposed for the full length of the pier wall, but is cast on solid rock. The left wing wall of pier wall #3 also has minor scour.</p>							
220	Reinforced Concrete Pile Cap/Footing	LF	46	30	0	16	0
1080	Delamination/Spall/Patched Area	LF	16	0	0	16	0
<p>(220) 04/26/2022 WNR & DBM: Pier wall #1 (abutment #1) footing- has cover.</p> <p>Pier wall #2 (bent #1) footing- has 18' of the top of the footing exposed with 2' of cs3 spalling with no rebar exposed.</p> <p>Pier wall #3 (abutment #2) footing - has 28' of the footing exposed with up to 10" of the vertical face exposed. The outer edge of the footing has 14' of cs3 spalling with no rebar exposed.</p>							
234	Reinforced Concrete Pier Cap	LF	78	55	22	1	0
1080	Delamination/Spall/Patched Area	LF	4	0	4	0	0
1090	Exposed Rebar	LF	1	0	0	1	0
1130	Cracking (RC and Other)	LF	18	0	18	0	0
<p>(234) 04/26/2022 WNR & DBM: Pier Cap #1 - (abt #1) has 1' of spalling under unit #4 and 8' of vertical hairline cracking.</p> <p>Pier Cap #2 - has 6' of hairline vertical and horizontal cracking and 1' of exposed rebar on the span #2 side. Has 2' of spalling with no rebar exposed under unit #1 right stem and unit #2 left stem on span #1 side. Has 1' of spalling at the right cap end.</p> <p>Pier Cap #3- (abt #2) has 4' of hairline vertical cracking and 3' of spalling at the top edge under units #2,3,6.</p>							
330	Metal Bridge Railing	LF	76	12	64	0	0
1000	Corrosion	LF	64	0	64	0	0
515	Steel Protective Coating	SF	456	228	0	228	0
3440	Effectiveness (Steel Protective Coatings)	LF	228	0	0	228	0
<p>(330) 04/26/2022 WNR & DBM: Metal bridge railing- is metal w-section attached to concrete posts. The back side of the rail has corrosion for the full length on both sides. The end treatments are showing no corrosion. Pin point rusting exists on the front face of the metal railing.</p>							

Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	893	859	30	4	0
1120	Efflorescence/Rust Staining	SF	19	0	15	4	0
1130	Cracking (RC and Other)	SF	15	0	15	0	0
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Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
110	Reinforced Concrete Open Girder/Beam	LF	266	173	3	90	0
1080	Delamination/Spall/Patched Area	LF	19	0	0	19	0
1090	Exposed Rebar	LF	69	0	0	69	0
1120	Efflorescence/Rust Staining	LF	2	0	0	2	0
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(110) 04/26/2022 WNR & DBM:

Span #1 has 34' total of spalls with exposed rebar. RCCB #1 has 4' of spalling with exposed rebar on the right stem with 6' of delamination on the right stem.

RCCB #2 has 12' of spalling with exposed rebar on the left stem. RCCB #3 has 2' of delamination on the left stem. RCCB #4 has 7' of exposed rebar on the right stem. RCCB #5 has minor vertical hairline flexure cracking. RCCB #6 has 2' of spalling with exposed rebar on the left stem and 6' of spalling with exposed rebar on the right stem. RCCB #7 has 2' of spalling with exposed rebar on the left stem with minor insignificant spalling on the left and right stems.

Span #2- RCCB #1 has map cracking with efflorescence on the diaphragm over pier wall #2 and the outside face of the channel beam, and in the deck undersurface near the end of the span. The right stem has 2' of delamination. RCCB #2 has 10' of spalling with exposed rebar on the left stem. RCCB #3 has 2' of spalling with exposed rebar and 4' of delamination on the left stem, the right stem has 2' of spalling with exposed rebar. RCCB #4 has 14' of spalling with exposed rebar on the right stem with 1' of delamination. The left stem has 4' of spalling with exposed rebar and 3' of delimitation. RCCB #5 has 1' of spalling with exposed rebar on the left stem and 1' of delamination on the right stem. RCCB #6 has 6' of spalling with exposed rebar on the left stem and 3' of spalling with exposed rebar on the right stem. RCCB #7 has minor insignificant spalling on the right stem.

Deck: 16' of Girder #1 top flange is fully exposed extending from abutment #2 toward center span.

4

9 steel

Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
210	Reinforced Concrete Pier Wall	LF	125	105	18	2	0
1080	Delamination/Spall/Patched Area	LF	2	0	0	2	0
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1080	Delamination/Spall/Patched Area	LF	16	0	0	16	0
<p>(220) 04/26/2022 WNR & DBM: Pier wall #1 (abutment #1) footing- has cover.</p> <p>Pier wall #2 (bent #1) footing- has 18' of the top of the footing exposed with 2' of cs3 spalling with no rebar exposed.</p> <p>Pier wall #3 (abutment #2) footing - has 28' of the footing exposed with up to 10" of the vertical face exposed. The outer edge of the footing has 14' of cs3 spalling with no rebar exposed.</p>							
234	Reinforced Concrete Pier Cap	LF	78	55	22	1	0
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Elevation looking west



Inventory looking north



Spalling of cap at bent #1 span #1 under units #1 and #2



Footing at bent #1 behind side is exposed.



View of abutment #1



View of abutment #2



View of superstructure span #2



Span #1 superstructure



Upstream view



Downstream view



General view of deck



Typical view of driving surface.



Upstream channel view.



Downstream channel view.



Upstream channel view.



Downstream channel view.



Approach view in direction of log mile.



Approach view in direction of log mile.



16" of undermining at the mid section of the abutment #2 footing.



Upstream channel view.



Approach view in direction of log mile.



Pier wall #2 has cover over the footing.



Elevation view. Log mile from left to right.



Downstream channel view.



The footing is exposed at the right upstream corner of pier wall #1. With 4" of vertical face exposed for 4'.



General view of the pier wall #1 footing cover.



Typical view of driving surface.



General view of the abutment #2 footing. Showing 22" of vertical face exposed.



15' of the top of the footing is exposed on the span #1 side of pier wall #2.



Elevation view. Log mile from left to right.



Elevation view. Log mile from left to right.



Typical view of the driving surface.



Spalling with rebar exposed on the left curb of span 2.



Span 1 undersurface. Showing spalling with rebar exposed.



Span 2 undersurface showing spalling with rebar exposed.



The outside face of RCCB 1 at the beginning of span 2 showing map cracking with efflorescence. Spalling with exposed rebar exists in the same footage.



Map cracking with efflorescence on RCCB 7 at the beginning of span 2.



Exposed footing at abutment #2. Showing spalling on the outer edge.



General view of the exposed footing at pier wall #2.



View of the corrosion on the back side of the metal railing.



Asset #M0673(Record Change)

SH 27 Searcy over Forest Creek

Location: 4MI NE JCT SH 333

Team Lead: Benjamin Smith, **Inspection Date:** 03/02/2023

Maintenance Needs

Date Reported: 04/19/2016

Priority: C - Important

Status: Monitor

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

Component:

Deficiency Description

Span #1- Channel beams # 1,2,4,6,7 have large spalls with rebar exposed on the bottoms of the stems. The left curb at the beginning of span #2 has a spall with rebar exposed.

Span #2- Channel beams # 2,3,4,5,6 have large spalls with rebar exposed on the bottoms of the stems.

Remarks



Asset #M0673(Record Change)

SH 27 Searcy over Forest Creek

Location: 4MI NE JCT SH 333

Team Lead: Benjamin Smith, **Inspection Date:** 03/02/2023

Maintenance Needs

Date Reported: 04/19/2016

Priority: D- Routine

Status: Monitor

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

Component:

Deficiency Description

The top edge of the pier wall #2 footing is exposed for 18' in span #2. The abutment #2 footing is exposed for the full length of the abutment with up to 10" of vertical face exposed. No undermining was noted.

Remarks



Asset #M0673(Record Change)

SH 27 Searcy over Forest Creek

Location: 4MI NE JCT SH 333

Team Lead: Benjamin Smith, **Inspection Date:** 03/02/2023

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	
A-62 - Hydro and LMC Advised	
A-63 Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	



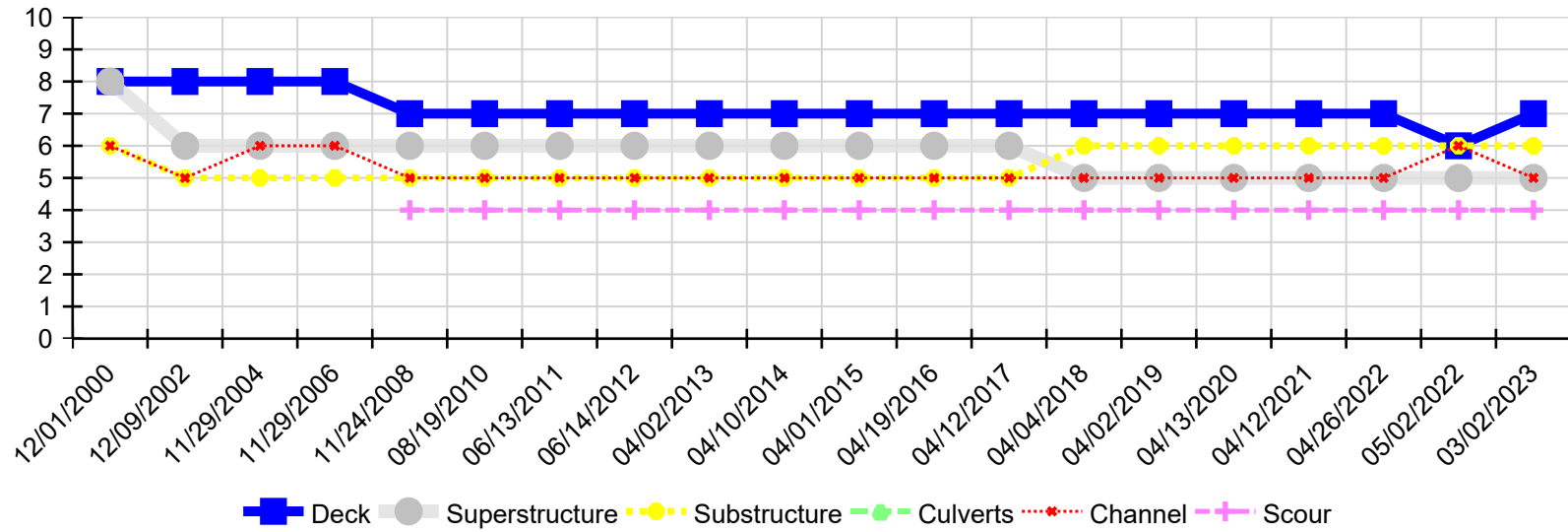
Asset #M0673(Record Change)

SH 27 Searcy over Forest Creek

Location: 4MI NE JCT SH 333

Team Lead: Benjamin Smith, Inspection Date: 03/02/2023

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
03/02/2023	7	5	6	N	5	4
05/02/2022	6	5	6	N	6	4
04/26/2022	7	5	6	N	5	4
04/12/2021	7	5	6	N	5	4
04/13/2020	7	5	6	N	5	4
04/02/2019	7	5	6	N	5	4
04/04/2018	7	5	6	N	5	4
04/12/2017	7	6	5	N	5	4
04/19/2016	7	6	5	N	5	4
04/01/2015	7	6	5	N	5	4
04/10/2014	7	6	5	N	5	4
04/02/2013	7	6	5	N	5	4
06/14/2012	7	6	5	N	5	4
06/13/2011	7	6	5	N	5	4
08/19/2010	7	6	5	N	5	4
11/24/2008	7	6	5	N	5	4
11/29/2006	8	6	5	N	6	N
11/29/2004	8	6	5	N	6	N
12/09/2002	8	6	5	N	5	N
12/01/2000	8	8	6	N	6	N