



Latitude:36.07549, Longitude:-90.98577

Route:412 Section:06 Log:3.11

Arnold Road ID:38x412x6BxA, Arnold Log mile:3.121

District 10, 75 - Lawrence County

Owner: 1 - State Highway Agency

Inspection Direction: 4 - W to E

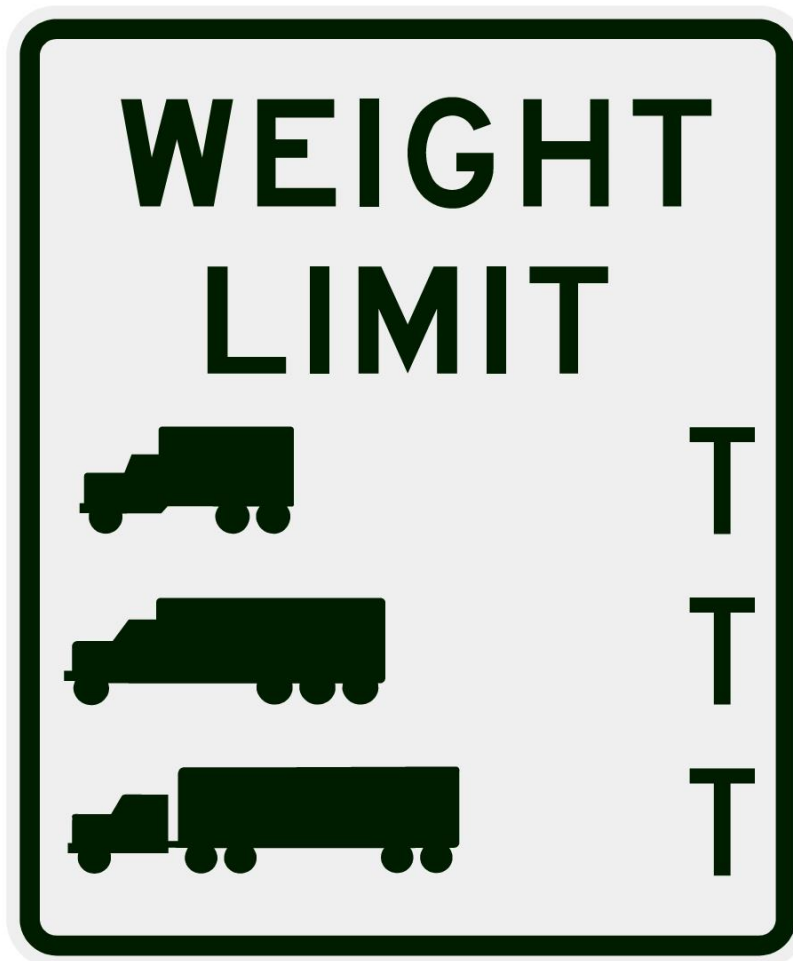
### Bridge Posting Information

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

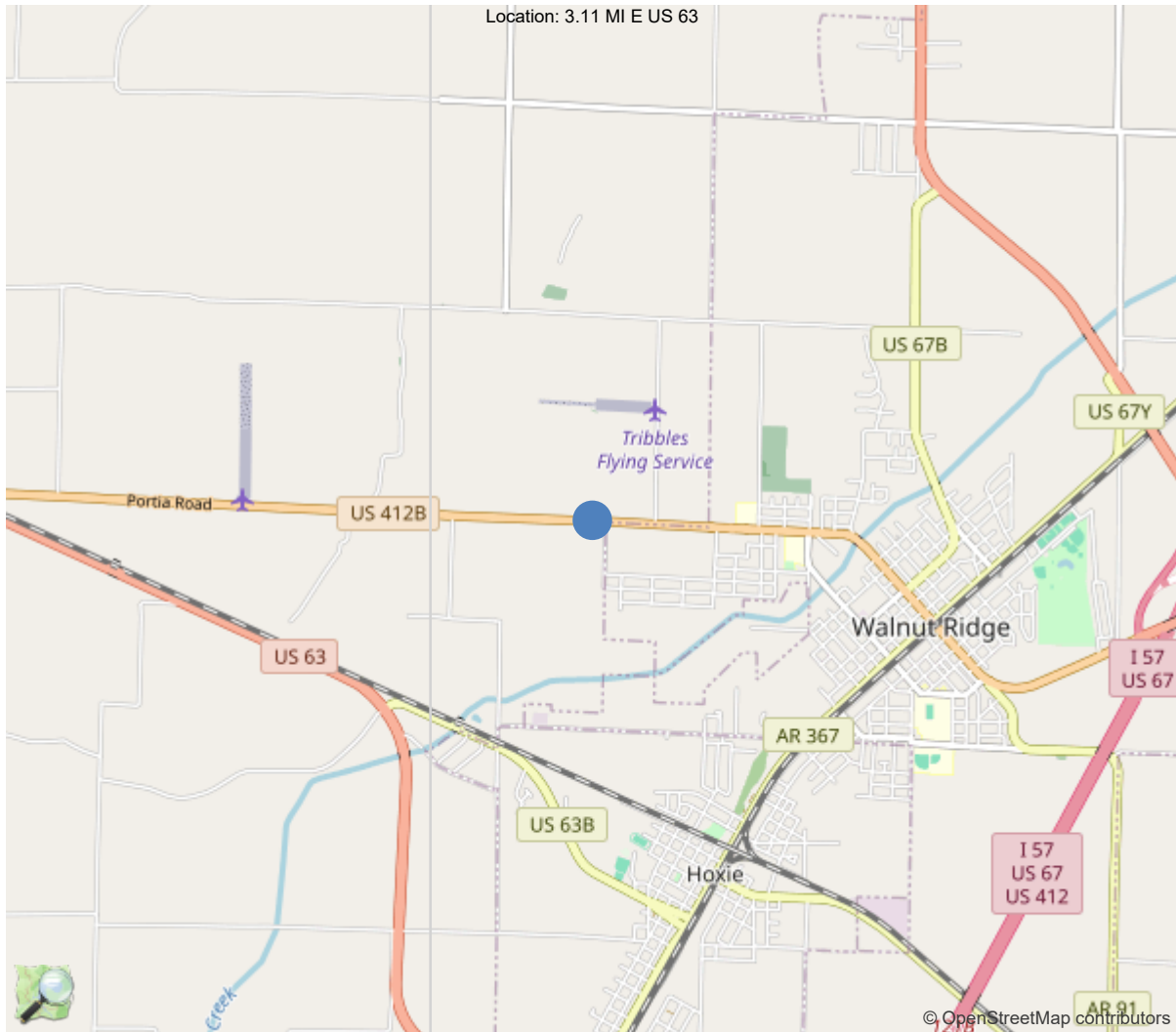
70 - Bridge Posting: 5 - Equal to or above legal loads

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



36.07549, -90.98577





**Asset #05727**(Routine, Underwater type 2)

**US 412-06B-LM 3.11 over COON CREEK**

**Location: 3.11 MI E US 63**

**Team Lead: Richard Jones Inspection Date: 09/18/2023**

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	05727
(5) Inventory Route	1
(2) Highway Agency District	10 - District 10
(3) County Code	75 - Lawrence County
(4) Place Code	0
(6) Features Intersected	COON CREEK
(7) Facility Carried	US 412-06B-LM 3.11
(9) Location	3.11 MI E US 63
(11) Mile Point	3.11 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000412060
(16) Latitude	36.07549
(17) Longitude	-90.98577
(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	0 - None (no additional concrete thickne
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1978
(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	3900
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	3 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	33 ft
(49) Structure Length	99 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	40 ft
(52) Deck Width Out to Out	42.7 ft
(32) Approach Roadway Width (W/Shoulders)	44 ft
(33) Bridge Median	0 - No median
(34) Skew	45 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	40 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	16 - Urban Minor Arterial
(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	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	6
(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	6
(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	4373
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	09/18/2023		
(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.			





**Asset #05727** (Routine, Underwater type 2)

**US 412-06B-LM 3.11 over COON CREEK**

**Location: 3.11 MI E US 63**

**Team Lead:** Richard Jones **Inspection Date:** 09/18/2023

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**58 - Deck** (7 - GOOD CONDITION - some minor problems.)

Slabs have unsealed cracks and areas of abrasion.

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**59 - Superstructure** (7 - GOOD CONDITION - some minor problems.)

Slab soffit has a few minor delaminated areas, mostly along outside edges.

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

Substructure has some spalled or delaminated areas. See elements

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**61 - Channel/Channel Protection** (6 - Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly.)

Bent 1 abutment is undermined for 6' on Lt end up to 2' below cap.

Embankment has minor erosion at toe of slope near bent 2.

Bent 4 abutment is undermined for 8' on Rt end up to 2' below abutment and up to 6' back under. Embankment has eroded back under Rt approach gutter.

Dense vegetation growing along channel banks.

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ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	4224	3702	456	66	0
1080	Delamination/Spall/Patched Area	SF	21	0	21	0	0
1090	Exposed Rebar	SF	2	0	0	2	0
1130	Cracking (RC and Other)	SF	120	0	120	0	0
1190	Abrasion/Wear (PSC/RC)	SF	379	0	315	64	0
(38) Slabs have a few unsealed cracks. Slabs have abrasion in wheel paths with a few scattered pop outs. Slab soffit has a few minor delaminated areas, mostly along outside edges. Soffit has some exposed rebar.							
215	Reinforced Concrete Abutment	LF	134	120	0	14	0
6000	Scour	LF	14	0	0	14	0
(215) Bent 1 abutment is undermined for 6' on Lt end up to 2' below cap. Bent 4 abutment is undermined for 8' on Rt end up to 2' below abutment and up to 6' back under. Embankment has eroded back under Rt approach gutter.							
227	Reinforced Concrete Pile	EA	21	17	3	1	0
1080	Delamination/Spall/Patched Area	EA	1	0	0	1	0
6000	Scour	EA	3	0	3	0	0
(227) A few piles are exposed at end bents from erosion. Bent 2 pile 7 has a 1' honey/delaminated area.							
234	Reinforced Concrete Pier Cap	LF	126	115	0	11	0
1080	Delamination/Spall/Patched Area	LF	11	0	0	11	0
(234) Bents 2 and 3 caps have minor spalls and delaminated areas near keyways. Bent 2 cap has a 3' delaminated area on ahead side.							
301	Pourable Joint Seal	LF	241	0	0	111	130
2320	Seal Adhesion	LF	111	0	0	111	0
2330	Seal Damage	LF	130	0	0	0	130
(301) Joint material has loss of adhesion with a few sections missing.							
321	Reinforced Concrete Approach Slab	SF	1080	1077	3	0	0
1080	Delamination/Spall/Patched Area	SF	3	0	3	0	0
1130	Cracking (RC and Other)	SF	30	30	0	0	0
(321) Approach slabs and gutters have a few minor cracks. Bent 4 (east) approach slab is covered with asphalt.							
331	Reinforced Concrete Bridge Railing	LF	198	196	0	2	0
1080	Delamination/Spall/Patched Area	LF	2	0	0	2	0
(331) Rails have a few minor spalls.							
(1080-331) Span 3 right side guard rail has 2' honeycomb area above drain							



side



roadway



Deck





Abrasion



Soffit



Span 2 Lt



aerial





09/18/2023

Bent 2 pile 7



09/18/2023

Embankment near bent 2



09/18/2023

Approach slab at end



09/18/2023

Bent 1 approach slab



### Maintenance Needs

**Date Reported:** 11/28/2011

**Priority:** C - Important

**Type of Work:** Channel Work/Drift Removal

**Status:** Open

**Component:** Approach

### Deficiency Description

Bent 1 abutment is undermined for 6' on Lt end up to 2' below cap.

Bent 4 abutment is undermined for 8' on Rt end up to 2' below abutment and up to 6' back under. Embankment has eroded back under Rt approach gutter.

### Remarks



09/19/2023

2023 - Bent 1 Lt



09/18/2023

2023 - Bent 4 Rt



09/18/2023

2023 - Bent 4 Rt



06/09/2020

Bent 4 Rt 2020





Bent 4 erosion RT SIDE 2019



Bent 1 Lt 2020



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**US 412-06B-LM 3.11 over COON CREEK**

**Location: 3.11 MI E US 63**

**Team Lead:** Richard Jones **Inspection Date:** 09/18/2023

#### **Maintenance Needs**

**Date Reported:** 11/28/2011

**Priority:** D- Routine

**Type of Work:** Substructure Repair

**Status:** Monitor

**Component:** Substructure

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#### **Deficiency Description**

Caps at bents 2 and 3 have minor spalls and/or delaminated areas near keyways.

#### **Remarks**

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**Maintenance Needs**

**Date Reported:** 09/11/2017

**Priority:** D- Routine

**Type of Work:** Miscellaneous

**Status:** Monitor

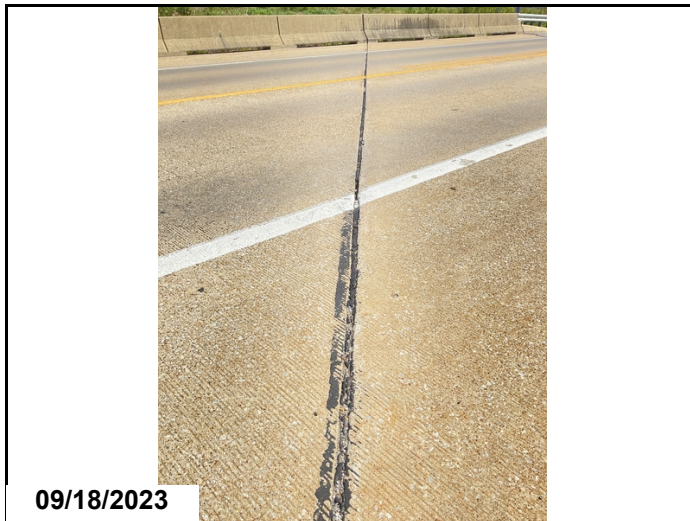
**Component:** Deck

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**Deficiency Description**

Joint material has loss of adhesion with a few sections missing.

**Remarks**



Typical joint





Asset #05727 (Routine, Underwater type 2)

US 412-06B-LM 3.11 over COON CREEK

Location: 3.11 MI E US 63

Team Lead: Richard Jones Inspection Date: 09/18/2023

## Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	Yes
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	Yes
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-54 - Sealable Deck Cracks (Yes)**

**A-55 - Deck Washing Needed**

**A-56 - Joint Cleaning/Flushing Needed**



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**Team Lead: Richard Jones Inspection Date: 09/18/2023**

**A-57 - Girder End and Bearing Painting Needed**

**A-58 - Cap Cleaning/Flushing Needed**

**A-59 - Joint Repair Needed (Yes)**

**A-60 - Full Girder 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**



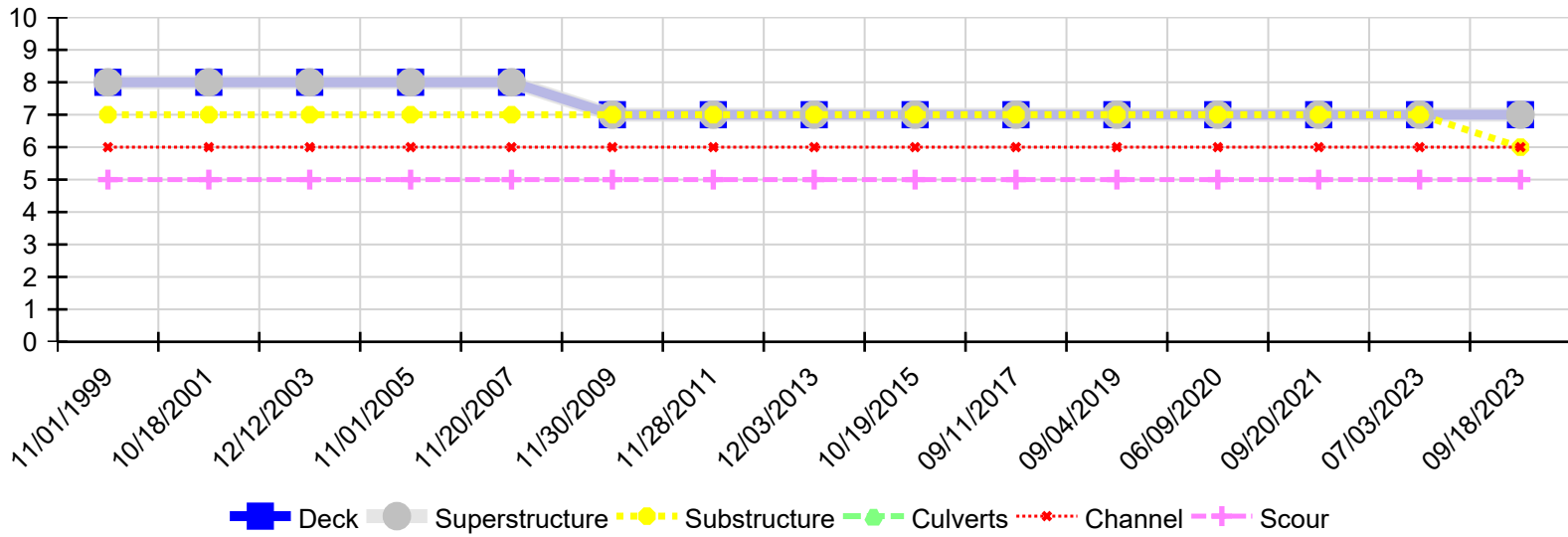
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US 412-06B-LM 3.11 over COON CREEK

Location: 3.11 MI E US 63

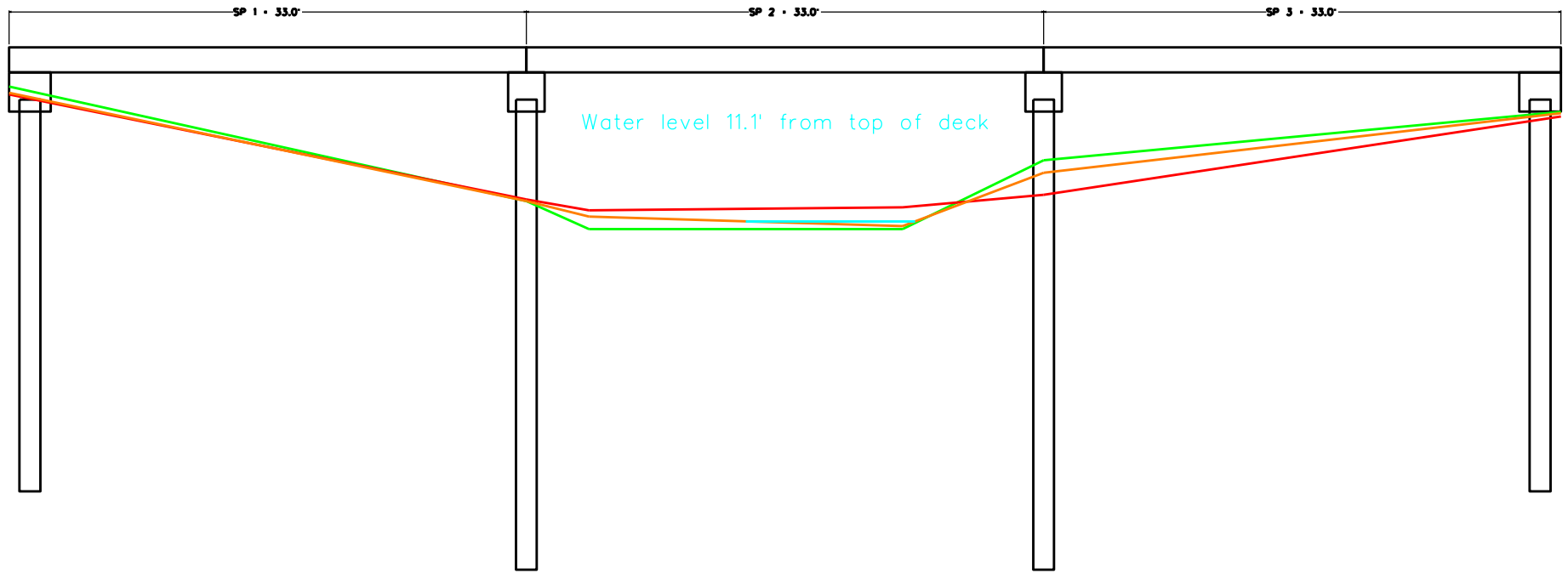
Team Lead: Richard Jones Inspection Date: 09/18/2023

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
09/18/2023	7	7	6	N	6	5
07/03/2023	7	7	7	N	6	5
09/20/2021	7	7	7	N	6	5
06/09/2020	7	7	7	N	6	5
09/04/2019	7	7	7	N	6	5
09/11/2017	7	7	7	N	6	5
10/19/2015	7	7	7	N	6	5
12/03/2013	7	7	7	N	6	5
11/28/2011	7	7	7	N	6	5
11/30/2009	7	7	7	N	6	5
11/20/2007	8	8	7	N	6	5
11/01/2005	8	8	7	N	6	5
12/12/2003	8	8	7	N	6	5
10/18/2001	8	8	7	N	6	5
11/01/1999	8	8	7	N	6	5





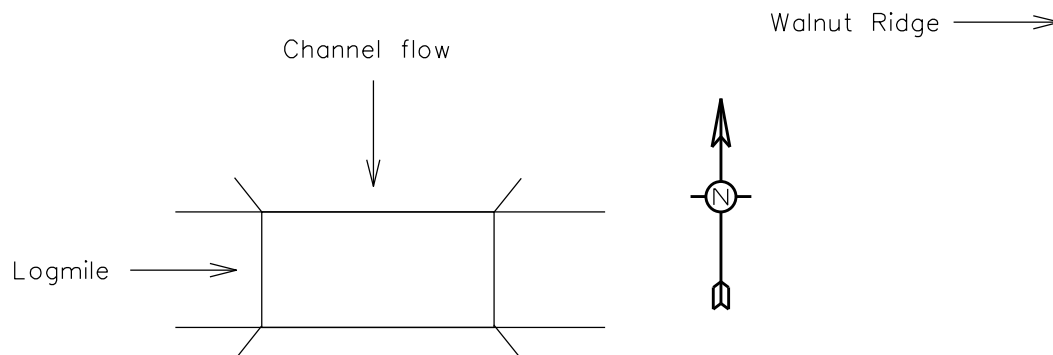
BT 1	BT 2	+4'	+24'	BT 3	BT 4
2.5'	9.8'	11.6'	11.6'	7.2'	4.1'
3.0'	9.7'	10.4'	10.2'	9.4'	4.4'
2.9'	9.8'	10.8'	11.4'	8'	4.2'

Channel sounded from top of deck, LEFT SIDE

Green soundings taken on 8-20-1990

Red soundings taken on 9-4-2019

Orange soundings taken on 9-18-2023



\*Not to Scale

Bridge No. 05727	Dist. 10	LAWRENCE
Logmile 3.11	US 412	Sect/Zone - 06
Date Drawn 8-14-19	Insp. / Assist.	JFA / CWS