



Latitude:36.06793, Longitude:-90.93564

Route:412 Section:07 Log:1.32

Arnold Road ID:38x412x6BxA, Arnold Log mile:1.327

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

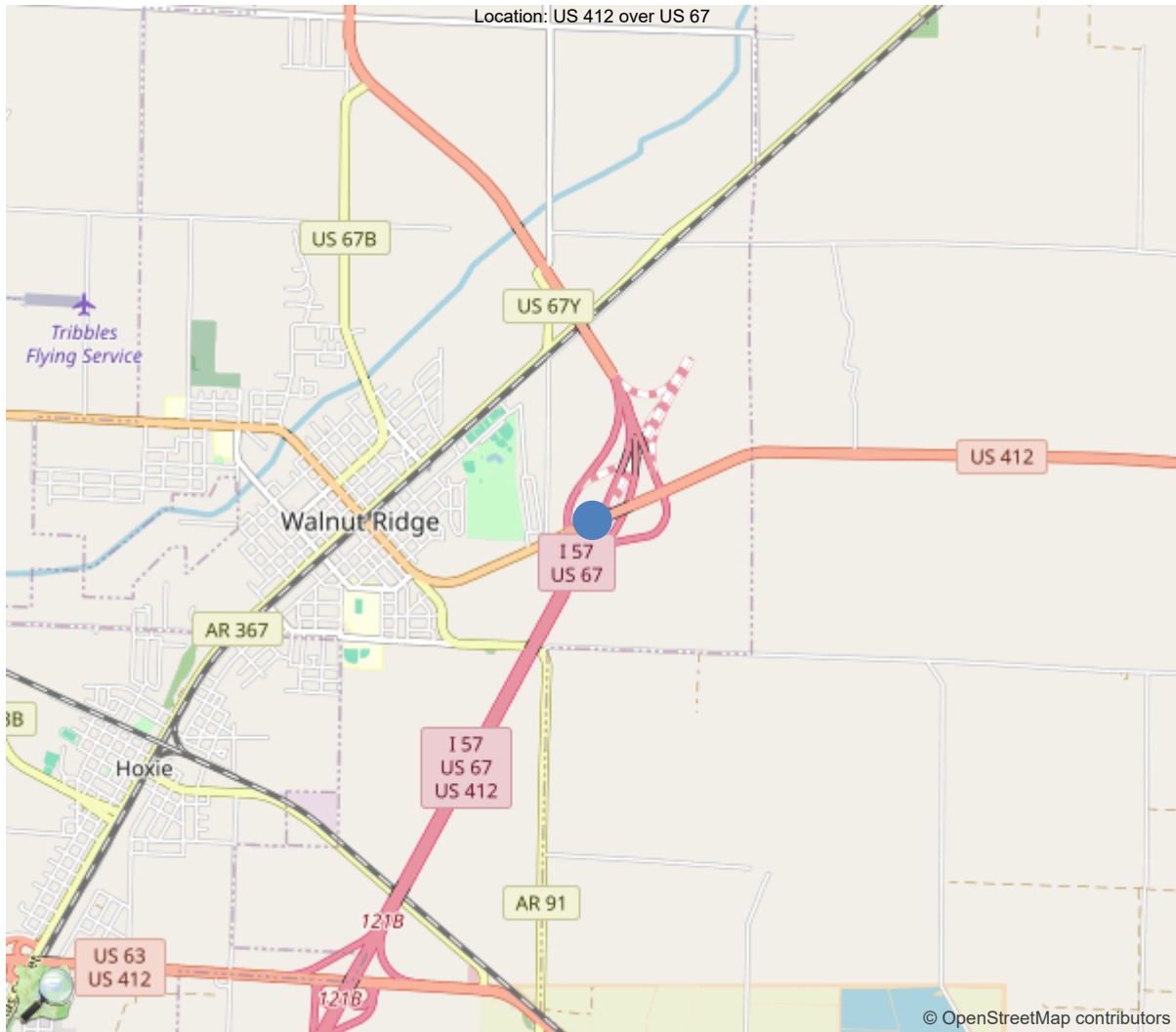
70 - Bridge Posting: 5 - Equal to or above legal loads

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)	56		

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



36.06793, -90.93564





**Asset #06544(Routine)**  
**US 412-6B- LM 1.32 over US 67**  
**Location: US 412 over US 67**

**Team Lead: Richard Jones Inspection Date: 08/16/2023**

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	06544
(5) Inventory Route	1
(2) Highway Agency District	10 - District 10
(3) County Code	75 - Lawrence County
(4) Place Code	72890
(6) Features Intersected	US 67
(7) Facility Carried	US 412-6B- LM 1.32
(9) Location	US 412 over US 67
(11) Mile Point	1.32 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000412070
(16) Latitude	36.06793
(17) Longitude	-90.93564
(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	8
(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	1 - Epoxy Coated Reinforcing
AGE AND SERVICE	
(27) Year Built	2001
(106) Year Reconstructed	0
(42) Type of Service	11
On	1 - Highway
Under	1 - Highway, with or without pedestrian
(28) Lane	
On	4
Under	4
(29) Average Daily Traffic	3076
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	160 ft
(49) Structure Length	1081.5 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	70 ft
(52) Deck Width Out to Out	72.8 ft
(32) Approach Roadway Width (W/Shoulders)	70 ft
(33) Bridge Median	0 - No median
(34) Skew	52 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	70 ft
(53) Min Vert Clear Over Bridge Rdwy	99.9 ft
(54) Min Vert Underclear	16.81 ft
Ref:	
(55) Min Lat Underclear RT	28.2 ft
Ref:	
(56) Min Lat Underclear LT	27.8 ft
NAVIGATION DATA	
(38) Navigation Control	N - Not applicable, no waterwa
(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	14 - Urban Other Principal Art
(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	6
(60) Substructure	7
(61) Channel & Channel Protection	N
(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	48
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	29
(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	9
(69) Clearances, Vertical/Horizontal	7
(71) Waterway Adequacy	N
(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	N - Bridge not over waterway.
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	4249
(115) Year of Future ADT	2027

INSPECTIONS *			
(90) Inspection Date	08/16/2023		
(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 #06544(Routine)  
US 412-6B- LM 1.32 over US 67  
Location: US 412 over US 67

Team Lead: Richard Jones Inspection Date: 08/16/2023

---

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

Deck has unsealed cracks and areas of abrasion.

Saw cut joints have areas of seals missing. SIP under saw cut joints have rust and section loss.

---

**59 - Superstructure** (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Superstructure has areas of peeling paint, corrosion, loose bolts at diaphragms.

Bent 5 elastomeric pads are sliding out from under sole plates. See elements

---

**60 - Substructure** (7 - GOOD CONDITION - some minor problems.)

Risers have a few cracks and spalls around anchor bolts.

---

**Team Lead:** Richard Jones **Inspection Date:** 08/16/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	78514	67365	9441	1708	0
1080	Delamination/Spall/Patched Area	SF	33	0	31	2	0
1090	Exposed Rebar	SF	1	0	1	0	0
1120	Efflorescence/Rust Staining	SF	1080	0	0	1080	0
1130	Cracking (RC and Other)	SF	9241	0	8624	617	0
1190	Abrasion/Wear (PSC/RC)	SF	794	0	785	9	0
(12) Deck has several minor unsealed cracks. Deck has areas of minor abrasion in wheel path and a few scattered pop outs. Poured joint material over saw cut joints has loss of adhesion with some sections missing. SIP forms have areas of rust and section loss under saw cut joints: Span 1 bay 1, 2, 6, and 7 Span 2 bays 1 - 7 Span 3 bays 6 and 7 Span 4 bay 7 Span 5 bays 1 - 7 Span 6 bay 4 Span 7 bays 1 and 7 Span 8 bay 7							
107	Steel Open Girder/Beam	LF	8624	8490	133	1	0
1000	Corrosion	LF	128	0	127	1	0
1020	Connection	LF	6	0	6	0	0
515	Steel Protective Coating	SF	147720	135417	12288	15	0
3420	Peeling/Bubbling/Cracking	LF	12288	0	12288	0	0
3440	Effectiveness (Steel Protective Coatings)	LF	15	0	0	15	0
(107) Steel girders have areas of peeling paint, especially at span 6. Splice bolts have a few areas of peeling paint with surface rust. Span 3 bay 2 diaphragm 9 has 5 loose bolts at connection to girder 2. Span 3 girder 3 splice 1 has 1 bolt that is not pulled up on bottom flange. Span 4 bay 5 diaphragm 3 at connection to girder 5 has 3 loose bolts. Span 5 bent 5 girder 1 has streaking rust at end of web. Web below haunch has flaking rust with some section loss. Bearing sole plate has some corrosion. Span 6 girder 6 splice 2 has two loose bolts on bottom flange. Span 6 bay 7 diaphragm 8 (first diaphragm past splice 2) has one loose bolt at connection to girder 8. Span 8 bay 2 diaphragm 3 has sixteen loose bolts.							
205	Reinforced Concrete Column	EA	35	35	0	0	0
(205) Bent 3 crash attenuator has 3 barrels damaged. Columns are in overall good condition.							
215	Reinforced Concrete Abutment	LF	308	305	2	1	0
1130	Cracking (RC and Other)	LF	3	0	2	1	0
(215) Abutment backwalls have a few minor cracks. Slope paving under spans 1 and 8 have some settlement. Slope pavement at Bent 9 Lt was repaired around 2015. Slope paving still has some settlement.							

**Team Lead:** Richard Jones **Inspection Date:** 08/16/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
234	Reinforced Concrete Pier Cap	LF	781	765	12	4	0
1080	Delamination/Spall/Patched Area	LF	4	0	0	4	0
1130	Cracking (RC and Other)	LF	12	0	12	0	0
(234) Bent 3 riser under girder 5 has a 6" spall/honeycomb area on one corner. Bent 4 cap has insignificant cracks. Bent 4 riser under girder 1 has a vertical crack near anchor bolt. Bent 4 riser under girder 3 has a vertical crack/delaminated area at anchor bolt. Bent 5 riser under girder 3 on back side has a 1' x 6" spall with some exposed rebar. Bent 5 riser under girder 4 on ahead side has a 1' x 6" spall with a portion of anchor bolt exposed.							
303	Assembly Joint with Seal	LF	343	0	343	0	0
2350	Debris Impaction	LF	343	0	343	0	0
(303) minor debris impaction							
310	Elastomeric Bearing	EA	80	73	0	5	2
2220	Alignment	EA	7	0	0	5	2
(310) Span 1 bent 1 bearing 8 elastomeric pad has rotated and shifted up to 6" under sole plate. Pad is still under sole plate, but misaligned. Span 4 bent 5 bearing 3 elastomeric pad has rotated out from under sole plate. Pad has shifted and only 2" remains under sole plate. Angles placed at bearing to hold pad in place are loose. Span 4 bent 5 bearing 4 elastomeric pad has shifted 2" from under sole plate. Angles were placed around bearing to hold pad in place in the past. Span 4 bent 5 bearing 8 elastomeric pad has shifted 6" from under bearing plate. Span 5 bent 5 girder 6 elastomeric pad has only a 3" corner remaining under sole plate, pad has almost completely rotated out from under plate. Angles placed at bearing to hold pad in place are unattached. Span 5 bent 5 girder 8 elastomeric pad has shifted/rotated 2" from under sole plate.							
321	Reinforced Concrete Approach Slab	SF	3857	3392	0	465	0
1130	Cracking (RC and Other)	SF	465	0	0	465	0
(321) Approach slabs have numerous unsealed diagonal cracks.							
331	Reinforced Concrete Bridge Railing	LF	2156	1889	254	13	0
1080	Delamination/Spall/Patched Area	LF	5	0	5	0	0
1120	Efflorescence/Rust Staining	LF	33	0	33	0	0
1130	Cracking (RC and Other)	LF	229	0	216	13	0
(331) Bridge rails have several vertical cracks, some have efflorescence.							





side



Roadway



overall deck



Span 6



5" gap at Rt rail over bent 5



Typical paint flaking and corrosion at splice



## Maintenance Needs

**Date Reported:** 07/29/2021

**Priority:** A - Safety deficiency; requires prompt action

**Status:** Assigned

**Type of Work:** Bearing Repair/Replacement

**Component:** Superstructure

---

## Deficiency Description

Span 4 bent 5 bearing 3 elastomeric pad has rotated out from under sole plate. Pad has shifted and only 2" remains under sole plate. Angles placed at bearing to hold pad in place are loose.

Span 4 bent 5 bearing 8 elastomeric pad has shifted 6" from under bearing plate.

Span 5 bent 5 girder 6 elastomeric pad has only a 3" corner remaining under sole plate, pad has almost completely rotated out from under plate. Angles placed at bearing to hold pad in place are unattached.

## Remarks

---



Span 4 bent 5 bearing 3 2023



Span 4 bent 5 bearing 3 2023





Span 4 bent 5 bearing 3 2021



Span 4 bent 5 bearing 3 2021



Span 4 bent 5 bearing 3 2019



Span 4 bent 5 bearing 8 2023



Span 4 bent 5 bearing 8 2023



Span 4 bent 5 bearing 8 2019





Span 5 bent 5 bearing 6 2023



Span 5 bent 5 bearing 6 2021



Span 5 bent 5 bearing 6 2021



Span 5 bent 5 bearing 6 2019



Span 5 bent 5 bearing 6 2017

### Maintenance Needs

**Date Reported:** 07/26/2019

**Priority:** C - Important

**Type of Work:** Bearing Repair/Replacement

**Status:** Monitor

**Component:** Superstructure

---

### Deficiency Description

Span 1 bent 1 bearing 8 elastomeric pad has rotated and shifted up to 6" under sole plate. Pad is still under sole plate, but misaligned.

Span 4 bent 5 bearing 4 elastomeric pad has shifted 2" from under sole plate. Angles were placed around bearing to hold pad in place in the past.

Span 5 bent 5 girder 8 elastomeric pad has shifted/rotated 2" from under sole plate.

### Remarks

---



Span 1 bent 1 bearing 8 2023



Span 1 Bent 1 bearing 8 twisted 2019





Span 4 bent 5 bearing 4 2023



Span 4 bent 5 bearing 4 2019



Span 4 bent 5 bearing 4 2019



Span 4 bent 5 bearing 8



Span 4 bent 5 bearing 8 both moving 2021



Span 5 bent 5 bearing 5 2019



Span 5 bent 5 bearing 8 2017



### Maintenance Needs

Date Reported: 07/26/2019

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Substructure

---

### Deficiency Description

Bent 3 riser under girder 5 has a 6" spall/honeycomb area on one corner.

Bent 4 riser under girder 1 has a vertical crack near anchor bolt.

Bent 4 riser under girder 3 has a vertical crack/delaminated area at anchor bolt.

Bent 5 riser under girder 3 on back side has a 1' x 6" spall with some exposed rebar.

Bent 5 riser under girder 4 on ahead side has a 1' x 6" spall with a portion of anchor bolt exposed.

### Remarks

---



Span 5 bent 5 girder 4 - 2023



Span 5 bent 5 riser under girder 4 2019





Span 4 bent 5 riser 4 2019

### Maintenance Needs

Date Reported: 08/02/2011

Priority: D- Routine

Type of Work: Miscellaneous

Status: Monitor

Component: Superstructure

---

### Deficiency Description

Steel girders have areas of peeling paint, especially at span 6.  
Splice bolts have a few areas of peeling paint with surface rust.

### Remarks

---



07/25/2017

peeling paint



07/25/2019

Span 3 girder 7 near splice paint 2019



### Maintenance Needs

Date Reported: 08/02/2011

Priority: D- Routine

Type of Work: Deck Repair

Status: Monitor

Component: Deck

### Deficiency Description

Deck has several minor unsealed cracks. Deck has areas of minor abrasion in wheel path and a few scattered pop outs. Poured joint material over saw cut joints has loss of adhesion with some sections missing. SIP forms have areas of rust and section loss under saw cut joints

### Remarks



Saw cut joint



Span 1 bays 6 and 7



typical soffit under saw cut joints



Span 1 bay 7 mid span

**Maintenance Needs**

**Date Reported:** 07/31/2013

**Priority:** D- Routine

**Type of Work:** Repair (General)

**Status:** Monitor

**Component:** Approach

---

**Deficiency Description**

Approach slabs have numerous unsealed diagonal cracks.

**Remarks**

---



Approach slab cracks

### Maintenance Needs

**Date Reported:** 07/24/2017

**Priority:** D- Routine

**Type of Work:** Repair (General)

**Status:** Monitor

**Component:** Superstructure

---

### Deficiency Description

Span 3 bay 2 diaphragm 9 has 5 loose bolts at connection to girder 2.

Span 3 girder 3 splice 1 has 1 bolt that is not pulled up on bottom flange.

Span 4 bay 5 diaphragm 3 at connection to girder 5 has 3 loose bolts.

Span 5 bent 5 girder 1 has streaking rust at end of web. Web below haunch has flaking rust with some section loss.

Bearing sole plate has some corrosion.

Span 6 girder 6 splice 2 has two loose bolts on bottom flange.

Span 6 bay 7 diaphragm 8 (first diaphragm past splice 2) has one loose bolt at connection to girder 8.

Span 8 bay 2 diaphragm 3 has sixteen loose bolts.

### Remarks

---



Span 5 bent 5 girder 1





## 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	Yes
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	

**A-54 - Sealable Deck Cracks (Yes)**

**A-55 - Deck Washing Needed**

**A-56 - Joint Cleaning/Flushing Needed (Yes)**



**Asset #06544**(Routine)  
**US 412-6B- LM 1.32 over US 67**  
**Location: US 412 over US 67**

**Team Lead:** Richard Jones **Inspection Date:** 08/16/2023

**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**

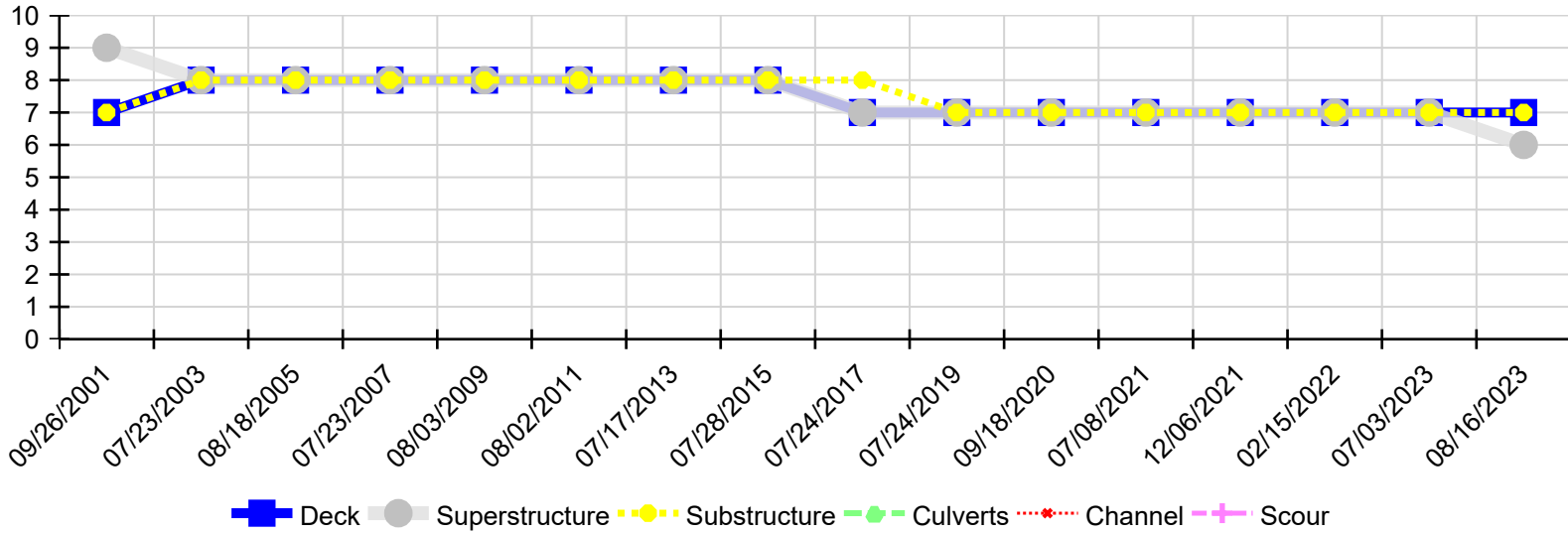
**A-64 - Vegetation Removal Requested**



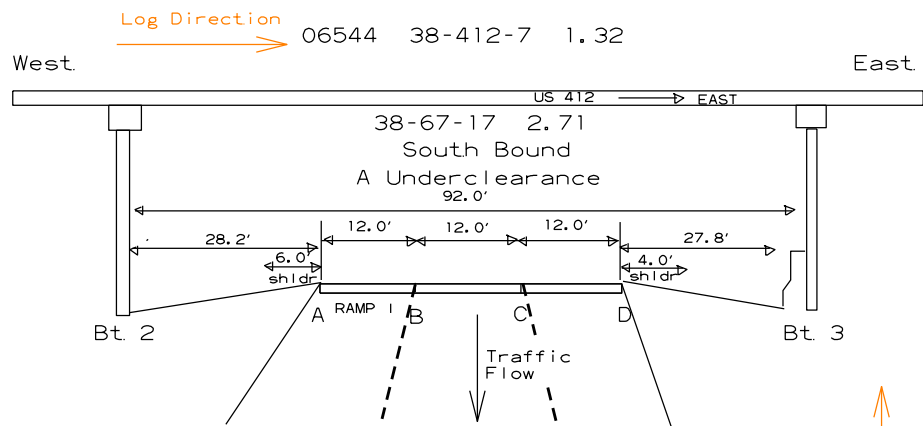
**Asset #06544(Routine)**  
**US 412-6B- LM 1.32 over US 67**  
**Location: US 412 over US 67**

**Team Lead: Richard Jones Inspection Date: 08/16/2023**

Condition History



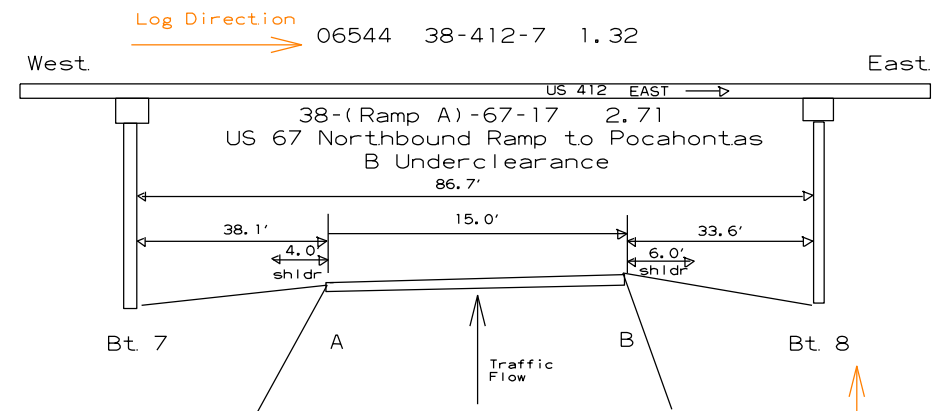
Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
08/16/2023	7	6	7	N	N	N
07/03/2023	7	7	7	N	N	N
02/15/2022	7	7	7	N	N	N
12/06/2021	7	7	7	N	N	N
07/08/2021	7	7	7	N	N	N
09/18/2020	7	7	7	N	N	N
07/24/2019	7	7	7	N	N	N
07/24/2017	7	7	8	N	N	N
07/28/2015	8	8	8	N	N	N
07/17/2013	8	8	8	N	N	N
08/02/2011	8	8	8	N	N	N
08/03/2009	8	8	8	N	N	N
07/23/2007	8	8	8	N	N	N
08/18/2005	8	8	8	N	N	N
07/23/2003	8	8	8	N	N	N
09/26/2001	7	9	7	N	N	N



	A	B	C	D
GIRDER 1	18.74'	18.24'	18.29'	18.31'
GIRDER 8	17.02'	16.81'	16.92'	17.04'

Hwy 67  
Log Mile  
Direction  
South to North

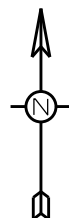
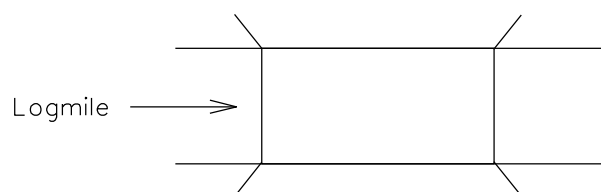
Red Readings are Minimum Clearance Per Roadway (Item #54)  
Gold Readings are Maximum Minimum Clearance Per Roadway (Item 10)



	A	B
GIRDER 1	17.84'	17.10'
GIRDER 8	18.98'	18.26'

Hwy 67 Log  
Direction  
South to North

Red Readings are Minimum Clearance Per Roadway (Item #54)  
Red Readings are Maximum Minimum Clearance Per Roadway (Item 10)



\*Not to Scale

Bridge No. 06544	Dist. 10	Co. Lawrence - 38
Logmile 1.32	Rt. 412	Sect/Zone - 07
Date Drawn 8/15/23 Insp. / Assist. RRJ / NSR		