



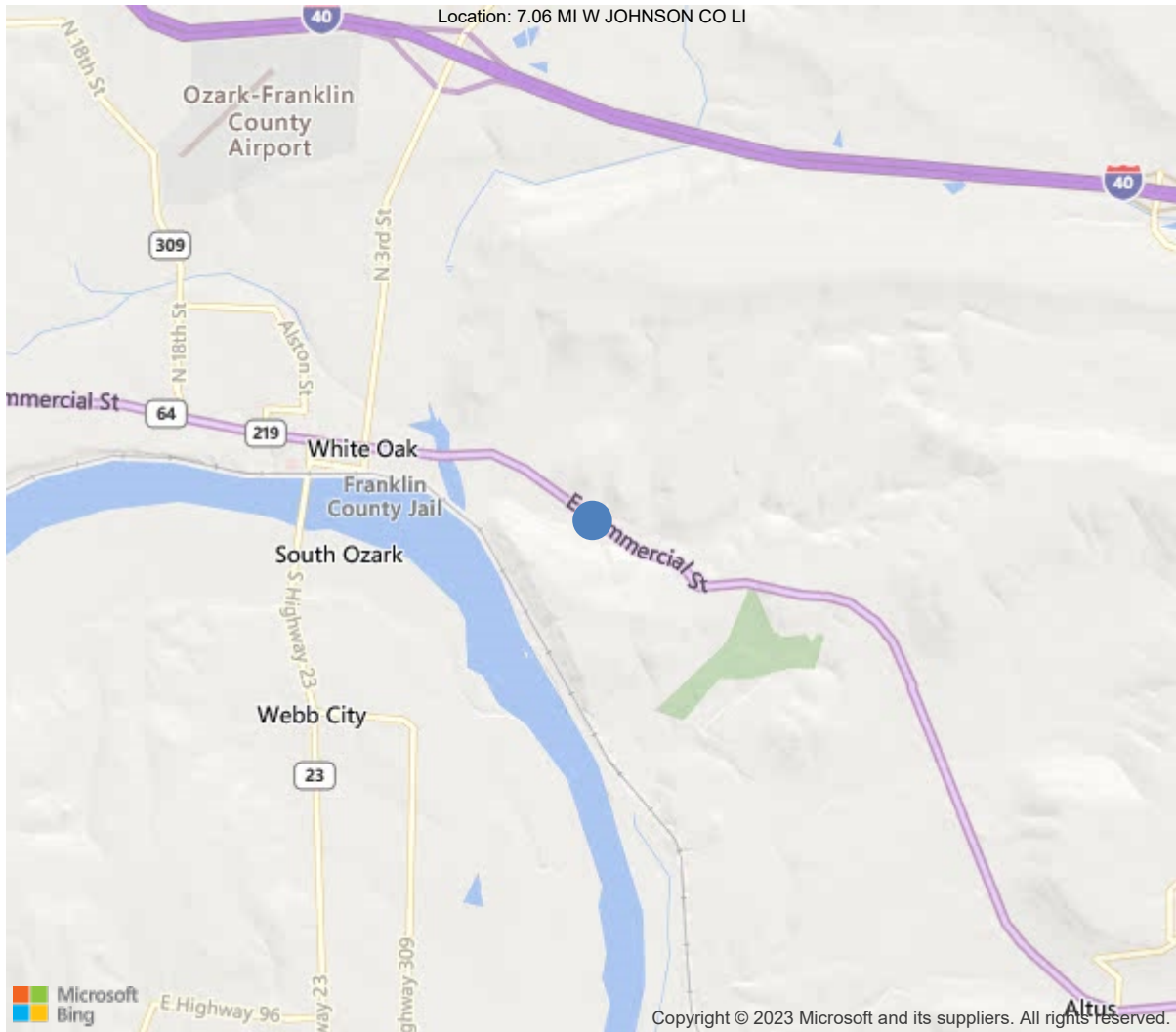
Latitude:35.48170, Longitude:-93.80717

Route:64 Section:03 Log:14

Arnold Road ID:24x64x3xA, Arnold Log mile:14.018

District 04, 47 - Franklin County

Owner: 1 - State Highway Agency



35.48170, -93.80717



Asset #A1647 (Routine, Underwater type 2)
US Highway 64 over Hicks Creek-Franklin Co.

Location: 7.06 MI W JOHNSON CO LI

Team Lead: Eric West, Inspection Date: 06/09/2022

| IDENTIFICATION | |
|---|--------------------------------|
| (1) State Names | 5 - Arkansas |
| (8) Structure Number | A1647 |
| (5) Inventory Route | 1 |
| (2) Highway Agency District | 04 - District 04 |
| (3) County Code | 47 - Franklin County |
| (4) Place Code | 0 |
| (6) Features Intersected | Hicks Creek-Franklin Co. |
| (7) Facility Carried | US Highway 64 |
| (9) Location | 7.06 MI W JOHNSON CO LI |
| (11) Mile Point | 14 mi |
| (12) Base Highway Network | No |
| (13) LRS Inventory Rte & Subrte | 0000000000 |
| (16) Latitude | 35.481697 |
| (17) Longitude | -93.807167 |
| (98) Border Bridge State Code | |
| (99) Border Bridge Structure No. | |
| STRUCTURE TYPE AND MATERIAL | |
| (43) Main Structure Type | 14 |
| Material | 1 - Concrete |
| Type | 4 - Tee beam |
| (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 | 1931 |
| (106) Year Reconstructed | 1960 |
| (42) Type of Service | 15 |
| On | 1 - Highway |
| Under | 5 - Waterway |
| (28) Lane | |
| On | 2 |
| Under | 0 |
| (29) Average Daily Traffic | 3700 |
| (30) Year of ADT | 2018 |
| (109) Truck ADT | 5 % |
| (19) Bypass, Detour Length | 10 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 | 27.9 ft |
| (52) Deck Width Out to Out | 31.7 ft |
| (32) Approach Roadway Width (W/Shoulders) | 36.1 ft |
| (33) Bridge Median | 0 - No median |
| (34) Skew | 30 Deg |
| (35) Structure Flared | 0 - No flare |
| (10) Inventory Route Min Vert Clear | 99.99 ft |
| (47) Inventory Route Total Horiz Clear | 31.2 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 | 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 | 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 | 5 |
| (59) Superstructure | 4 |
| (60) Substructure | 5 |
| (61) Channel & Channel Protection | 6 |
| (62) Culverts | N |
| LOAD RATING AND POSTING | |
| (31) Design Load | 4 - M 18 / H 20 |
| (63) Operating Rating Method | 1 |
| (64) Operating Rating | |
| Type | 1 - Load Factor(LF) |
| Rating | 46 |
| (65) Inventory Rating Method | 1 - Load Factor(LF) |
| (66) Inventory Rating | |
| Type | |
| Rating | 28 |
| (70) Bridge Posting | 5 - Equal to or above legal loads |
| (41) Structure Open/Posted/Closed | A - Open, no restriction |
| APPRAISAL | |
| (67) Structural Evaluation | 4 |
| (68) Deck Geometry | 4 |
| (69) Clearances, Vertical/Horizontal | N |
| (71) Waterway Adequacy | 6 |
| (72) Approach Roadway Alignment | 7 |
| (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 | 8 - 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 | 6020 |
| (115) Year of Future ADT | 2028 |

| INSPECTIONS * | | | |
|--|------------|-------------|------|
| (90) Inspection Date | 06/09/2022 | | |
| (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. | | | |

General Observation

06/09/2022 - EJW & JPW - Routine and Underwater Type II Inspection conducted on this date. Channel profile taken on this date.

05/11/2021 - RSM & SPC - Other Special Recurring Inspection conducted this date. See element notes for documentation.

05/11/2020 - RSM & SPC: Routine Inspection conducted this date. See element notes for documentation.

06/17/2019 - JCJ & TJL - Special Recurring Inspection conducted this date. See documentation in Superstructure Notes for additional information.

05/01/2018 - JCJ & TJL -

Type 2 Underwater Inspection - Wading and probing in approximately 5' deep water conditions adjacent to Bent # 1 indicate that the top of the footing is exposed with no apparent scour problems at this inspection. The channel appears to be solid rock adjacent to the Bent # 1 footing. All other footings have cover at this inspection.

59 - Superstructure (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

06/17/2019 - JCJ & TJL - Special Recurring Inspection conducted this date.

The ends of the original girders have large delaminated areas and spalls with exposed reinforcing steel at Bents # 2 & 3 where the expansion joints leak water on to the ends of the girders.

The exposed longitudinal primary reinforcing steel and secondary steel bands have active corrosion with up to approximately 1/8" section loss.

There is a hairline shear type crack on the exterior surface of Girder # 1 (East crack Measures 0.01" and West crack measures 0.002") adjacent to Bent # 4 and at Girder # 5 (Measures 0.005") adjacent to Bent # 4 that have no apparent changes since last inspection.

Exterior Concrete girders have vertical hairline flexure cracks on approximately 12" centers.

Interior girders have a few vertical hairline cracks near mid - span.

There are several patched areas that have been grouted over in the past.

The exterior girders have light scale.

There are no apparent changes or repairs since the last inspection.

60 - Substructure (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

06/09/2022 - EJW & JPW - Underwater Type II Inspection conducted on this date. Wading and probing with elevated and turbid water conditions indicate:

-Abutment #1 footing is exposed with approximately 5" of the vertical edge exposed but appears to be keyed into rock channel that is partially exposed.

-Bent # 2 footings have cover.

-Bent # 3 footings have cover.

-Abutment #2 footing has cover.

-No apparent scour problems at this inspection.



Asset #A1647 (Routine, Underwater type 2)

District: 04, County: 47 - Franklin County

Team Lead: Eric West, Inspection Date: 06/09/2022

A-15 - Late Reason (Optimize Schedule)

06/09/2022 - EJW - Structure inspected late due to heavy work load.

A-46 - Asset Files

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Asset #A1647 (Routine, Underwater type 2)

US Highway 64 over Hicks Creek-Franklin Co.

Location: 7.06 MI W JOHNSON CO LI

Team Lead: Eric West, Inspection Date: 06/09/2022

| ELEMENTS | DESCRIPTION | UNITS | TOTAL | CS1 | CS2 | CS3 | CS4 |
|---|--------------------------------------|-------|-------|------|-----|------|-----|
| 16 | Reinforced Concrete Top Flange | SF | 2835 | 2787 | 9 | 39 | 0 |
| 1080 | Delamination/Spall/Patched Area | SF | 1 | 0 | 1 | 0 | 0 |
| 1090 | Exposed Rebar | SF | 22 | 0 | 0 | 22 | 0 |
| 1120 | Efflorescence/Rust Staining | SF | 18 | 0 | 8 | 10 | 0 |
| 1130 | Cracking (RC and Other) | SF | 8 | 1 | 0 | 7 | 0 |
| 510 | Wearing Surfaces | SF | 2520 | 900 | 37 | 1583 | 0 |
| 3210 | Delam/Spall/Patched Area/Pothole | SF | 41 | 0 | 37 | 4 | 0 |
| 3220 | Crack (Wearing Surface) | SF | 1579 | 0 | 0 | 1579 | 0 |
| <p>(16) Asphalt driving surface of the deck:</p> <ul style="list-style-type: none"> -Map cracking in the asphalt is typical in all spans. -The asphalt driving surface is breaking apart over the intermediate expansion joints with numerous patches. -There is vegetation growing in the gutters restricting the deck drains. <p>Deck Undersurface:</p> <p>There is spalling with exposed reinforcing steel in the diaphragms / expansion joint dams over the intermediate Bents. Transverse cracking at variable spacing with areas of rust stains and efflorescence are visible from the undersurface of the deck.</p> <ul style="list-style-type: none"> -Span # 2 Rt overhang has 3 shallow spalls with exposed reinforcing steel in undersurface of deck overhang. -Span # 2 Lt overhang has two 8" spall's with exposed reinforcing steel over bent #2. -Span # 3 Lt has a 16" area of honeycombing with exposed reinforcing steel at deck drain #1 and a 12" delamination adjacent to deck drain #2. -Span # 3 Lt- Abutment # 2 Lt wing wall has a diagonal crack that propagates from under girder # 1 up through the deck overhang. The crack is approximately 1/16" wide in undersurface of deck overhang and approximately 1/8" wide in vertical face of curb. -Spans # 2 and # 3 appear to make contact on the left side over bent # 3. <ul style="list-style-type: none"> -Span # 1 bay # 1, 2 & 3 Bent # 2 have spalling with exposed reinforcing steel in the expansion dam. -Span # 2 bay # 2 & 3 Bent # 3 have spalling with exposed reinforcing steel in the expansion dam. -Span # 3 bay # 3 & 4 Bent # 3 have spalling with exposed reinforcing steel in the expansion dam. <p>(510-16) -Map cracking typical on the driving surface and asphalt breaking apart over the expansion joints.</p> | | | | | | | |
| 110 | Reinforced Concrete Open Girder/Beam | LF | 450 | 363 | 71 | 13 | 3 |
| 1080 | Delamination/Spall/Patched Area | LF | 4 | 0 | 0 | 4 | 0 |
| 1090 | Exposed Rebar | LF | 9 | 0 | 0 | 9 | 0 |
| 1130 | Cracking (RC and Other) | LF | 74 | 0 | 71 | 0 | 3 |



Asset #A1647(Routine, Underwater type 2)
US Highway 64 over Hicks Creek-Franklin Co.
Location: 7.06 MI W JOHNSON CO LI

Team Lead: Eric West, Inspection Date: 06/09/2022

| ELEMENTS | DESCRIPTION | UNITS | TOTAL | CS1 | CS2 | CS3 | CS4 |
|--|---------------------------------|-------|-------|-----|-----|-----|-----|
| <p>(110) 05/11/2021 - RSM & SPC: Other Special Recurring Inspection.</p> <p>-The ends of the original girders have large delaminated areas and spalls with exposed reinforcing steel at bents # 2 & 3 where the expansion joints leak water on to the ends of the girders. The exposed longitudinal primary reinforcing steel and secondary steel bands have active corrosion with up to approximately 1/8" section loss.</p> <p>-There are two hairline shear type cracks on the exterior face of girder # 1 of span # 3 at abutment # 2. The closest crack to the abutment (East crack) measures 0.01". The second crack (West crack) measures 0.002". No apparent change since last inspection.</p> <p>-Girder # 5 of span # 3 at abutment # 2 has a shear type crack that measures 0.005". No apparent change since last inspection.</p> <p>-Exterior concrete girders have vertical hairline flexure cracks on approximately 12" centers.</p> <p>-Interior girders have a few vertical hairline cracks near mid-span.</p> <p>-There are several patched areas that have been grouted over in the past.</p> <p>-The exterior girders have light scale.</p> <p>-Girder # 5 of spans # 2 and # 3 appears to make contact over bent # 3.</p> <p>-Span # 1 Girders # 3 & 4 Bent #2 have spalling with exposed reinforcing steel.</p> <p>-Span # 2 Girders # 2, 3 & 4 Bent # 3 have spalling with exposed reinforcing steel.</p> <p>-Span # 2 Girders # 2, 3 & 4 Bent # 2 have spalling with exposed reinforcing steel.</p> | | | | | | | |
| 205 | Reinforced Concrete Column | EA | 8 | 2 | 6 | 0 | 0 |
| 1130 | Cracking (RC and Other) | EA | 2 | 0 | 2 | 0 | 0 |
| 1190 | Abrasion/Wear (PSC/RC) | EA | 4 | 0 | 4 | 0 | 0 |
| <p>(205) -There is light abrasion at the base of the columns.</p> <p>-Bent # 2, Column # 4 has hairline vertical cracking in ahead face near cap juncture.</p> <p>-Bent # 3, Column # 3 has a patched area in the backface with a vertical hairline crack near the patched area.</p> <p>-Bent # 3, Column # 4 has a hairline vertical crack with light scaling in the ahead face.</p> | | | | | | | |
| 210 | Reinforced Concrete Pier Wall | LF | 32 | 0 | 32 | 0 | 0 |
| 1130 | Cracking (RC and Other) | LF | 4 | 0 | 4 | 0 | 0 |
| 1190 | Abrasion/Wear (PSC/RC) | LF | 28 | 0 | 28 | 0 | 0 |
| (210) -Intermediate bents have one or two vertical hairline cracks in each wall. | | | | | | | |
| 215 | Reinforced Concrete Abutment | LF | 130 | 89 | 37 | 4 | 0 |
| 1080 | Delamination/Spall/Patched Area | LF | 1 | 0 | 1 | 0 | 0 |
| 1090 | Exposed Rebar | LF | 2 | 0 | 0 | 2 | 0 |
| 1120 | Efflorescence/Rust Staining | LF | 3 | 0 | 1 | 2 | 0 |
| 1130 | Cracking (RC and Other) | LF | 26 | 0 | 26 | 0 | 0 |
| 1190 | Abrasion/Wear (PSC/RC) | LF | 9 | 0 | 9 | 0 | 0 |

Location: 7.06 MI W JOHNSON CO LI

Team Lead: Eric West, **Inspection Date:** 06/09/2022

| ELEMENTS | DESCRIPTION | UNITS | TOTAL | CS1 | CS2 | CS3 | CS4 |
|--|---|-------|-------|-----|-----|-----|-----|
| (215) -Abutments have full height vertical cracks at variable spacing with light efflorescence in the stem walls with diagonal cracks in the exterior edges adjacent to the wing wall junctures. -There is one 3" spall with exposed reinforcing steel in each abutment. -Abutment # 1 Lt has a failing concrete patch under girder #1. -Abutment # 1 has vertical and diagonal cracking in the stem wall and Rt wing wall efflorescence and staining. -Abutment # 2 stem wall has light abrasion along the base. -Abutment # 2 has a diagonal crack that propagates diagonally from under girder # 1 up the wing wall and transversely through the deck overhang. The crack is approximately 1/16" wide in undersurface of deck overhang and approximately 1/8" wide in vertical face of curb. -Abutment #2 has a 3" spall with exposed reinforcing steel under Girder #4. Exposed steel has active corrosion with section loss and appears to be cast into the girder as well as the abutment. | | | | | | | |
| 220 | Reinforced Concrete Pile Cap/Footing | LF | 63 | 63 | 0 | 0 | 0 |
| (220) -Abutment # 1 footing is exposed. Solid rock channel is exposed adjacent to the footing. No apparent scour problems at this inspection. | | | | | | | |
| 234 | Reinforced Concrete Pier Cap | LF | 65 | 50 | 11 | 4 | 0 |
| 1080 | Delamination/Spall/Patched Area | LF | 4 | 0 | 4 | 0 | 0 |
| 1090 | Exposed Rebar | LF | 4 | 0 | 0 | 4 | 0 |
| 1130 | Cracking (RC and Other) | LF | 7 | 0 | 7 | 0 | 0 |
| (234) -Water stains on the substructure indicate that the deck joints leak. -Bent caps have 2" areas of concrete spalling with exposed # 9 wire / snap ties. -Bent # 2 Rt aheadface has a 8" spall with exposed reinforcing steel under girder # 4. -Bent # 2 Lt has a 10" spall with exposed reinforcing steel visible from the undersurface of the cap located between columns # 1 and # 2 in the original portion of the cap. -Bent # 2 Lt aheadface has vertical crack near the end of the cap. -Bent # 3 aheadface has a 8" spall with exposed reinforcing steel. Bent #3 Lt backface has a 8" delamination and a horizontal crack at the construction widening joint. Bent # 3 Rt backface has horizontal cracking at the base of the cap at the construction joint. | | | | | | | |
| 302 | Compression Joint Seal | LF | 73 | 0 | 0 | 73 | 0 |
| 2350 | Debris Impaction | LF | 73 | 0 | 0 | 73 | 0 |
| (302) -Joint seals are covered in asphalt. Staining on the substructure caps indicate leakage. | | | | | | | |
| 311 | Movable Bearing | EA | 4 | 0 | 0 | 4 | 0 |
| 1000 | Corrosion | EA | 4 | 0 | 0 | 4 | 0 |
| (311) -Bearings have active corrosion with flaking rust / section loss. | | | | | | | |
| 330 | Metal Bridge Railing | LF | 180 | 33 | 147 | 0 | 0 |
| 1000 | Corrosion | LF | 144 | 0 | 144 | 0 | 0 |
| 7000 | Damage | LF | 3 | 0 | 3 | 0 | 0 |
| 515 | Steel Protective Coating | SF | 996 | 90 | 363 | 363 | 180 |
| 3440 | Effectiveness (Steel Protective Coatings) | LF | 906 | 0 | 363 | 363 | 180 |
| (330) -Span # 1, Right side has one post adjacent to bent # 2 that has minor out of plane bending at the bolted connection where the post is attached to the curb. -Metal bridge railing and posts have areas with superficial rust coating. -Maintenance forces have replaced the metal rail only on the right side of Span #1. | | | | | | | |



Deck

| ELEMENTS | DESCRIPTION | UNITS | TOTAL | CS1 | CS2 | CS3 | CS4 |
|----------|----------------------------------|-------|-------|------|-----|------|-----|
| 16 | Reinforced Concrete Top Flange | SF | 2835 | 2787 | 9 | 39 | 0 |
| 1080 | Delamination/Spall/Patched Area | SF | 1 | 0 | 1 | 0 | 0 |
| 1090 | Exposed Rebar | SF | 22 | 0 | 0 | 22 | 0 |
| 1120 | Efflorescence/Rust Staining | SF | 18 | 0 | 8 | 10 | 0 |
| 1130 | Cracking (RC and Other) | SF | 8 | 1 | 0 | 7 | 0 |
| 510 | Wearing Surfaces | SF | 2520 | 900 | 37 | 1583 | 0 |
| 3210 | Delam/Spall/Patched Area/Pothole | SF | 41 | 0 | 37 | 4 | 0 |
| 3220 | Crack (Wearing Surface) | SF | 1579 | 0 | 0 | 1579 | 0 |

(16) Asphalt driving surface of the deck:
 -Map cracking in the asphalt is typical in all spans.
 -The asphalt driving surface is breaking apart over the intermediate expansion joints with numerous patches.
 -There is vegetation growing in the gutters restricting the deck drains.

Deck Undersurface:
 There is spalling with exposed reinforcing steel in the diaphragms / expansion joint dams over the intermediate Bents.
 Transverse cracking at variable spacing with areas of rust stains and efflorescence are visible from the undersurface of the deck.
 -Span # 2 Rt overhang has 3 shallow spalls with exposed reinforcing steel in undersurface of deck overhang.
 -Span # 2 Lt overhang has two 8" spall's with exposed reinforcing steel over bent #2.
 -Span # 3 Lt has a 16" area of honeycombing with exposed reinforcing steel at deck drain #1 and a 12" delamination adjacent to deck drain #2.
 -Span # 3 Lt- Abutment # 2 Lt wing wall has a diagonal crack that propagates from under girder # 1 up through the deck overhang. The crack is approximately 1/16" wide in undersurface of deck overhang and approximately 1/8" wide in vertical face of curb.
 -Spans # 2 and # 3 appear to make contact on the left side over bent # 3.

-Span # 1 bay # 1, 2 & 3 Bent # 2 have spalling with exposed reinforcing steel in the expansion dam.
 -Span # 2 bay # 2 & 3 Bent # 3 have spalling with exposed reinforcing steel in the expansion dam.
 -Span # 3 bay # 3 & 4 Bent # 3 have spalling with exposed reinforcing steel in the expansion dam.

(510-16) -Map cracking typical on the driving surface and asphalt breaking apart over the expansion joints.



Superstructure

| ELEMENTS | DESCRIPTION | UNITS | TOTAL | CS1 | CS2 | CS3 | CS4 |
|----------|--------------------------------------|-------|-------|-----|-----|-----|-----|
| 110 | Reinforced Concrete Open Girder/Beam | LF | 450 | 363 | 71 | 13 | 3 |
| 1080 | Delamination/Spall/Patched Area | LF | 4 | 0 | 0 | 4 | 0 |
| 1090 | Exposed Rebar | LF | 9 | 0 | 0 | 9 | 0 |
| 1130 | Cracking (RC and Other) | LF | 74 | 0 | 71 | 0 | 3 |

(110) 05/11/2021 - RSM & SPC: Other Special Recurring Inspection.
 -The ends of the original girders have large delaminated areas and spalls with exposed reinforcing steel at bents # 2 & 3 where the expansion joints leak water on to the ends of the girders. The exposed longitudinal primary reinforcing steel and secondary steel bands have active corrosion with up to approximately 1/8" section loss.
 -There are two hairline shear type cracks on the exterior face of girder # 1 of span # 3 at abutment # 2. The closest crack to the abutment (East crack) measures 0.01". The second crack (West crack) measures 0.002". No apparent change since last inspection.
 -Girder # 5 of span # 3 at abutment # 2 has a shear type crack that measures 0.005". No apparent change since last inspection.
 -Exterior concrete girders have vertical hairline flexure cracks on approximately 12" centers.
 -Interior girders have a few vertical hairline cracks near mid-span.
 -There are several patched areas that have been grouted over in the past.
 -The exterior girders have light scale.
 -Girder # 5 of spans # 2 and # 3 appears to make contact over bent # 3.
 -Span # 1 Girders # 3 & 4 Bent #2 have spalling with exposed reinforcing steel.
 -Span # 2 Girders # 2, 3 & 4 Bent # 3 have spalling with exposed reinforcing steel.
 -Span # 2 Girders # 2, 3 & 4 Bent # 2 have spalling with exposed reinforcing steel.

59 - Superstructure (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

Comment: 06/17/2019 - JCJ & TJL - Special Recurring Inspection conducted this date.

The ends of the original girders have large delaminated areas and spalls with exposed reinforcing steel at Bents # 2 & 3 where the expansion joints leak water on to the ends of the girders.

The exposed longitudinal primary reinforcing steel and secondary steel bands have active corrosion with up to approximately 1/8" section loss.

There is a hairline shear type crack on the exterior surface of Girder # 1 (East crack Measures 0.01" and West crack measures 0.002") adjacent to Bent # 4 and at Girder # 5 (Measures 0.005") adjacent to Bent # 4 that have no apparent changes since last inspection.

Exterior Concrete girders have vertical hairline flexure cracks on approximately 12" centers.

Interior girders have a few vertical hairline cracks near mid - span.

There are several patched areas that have been grouted over in the past.

The exterior girders have light scale.

There are no apparent changes or repairs since the last inspection.

Substructure

| ELEMENTS | DESCRIPTION | UNITS | TOTAL | CS1 | CS2 | CS3 | CS4 |
|--|--------------------------------------|-------|-------|-----|-----|-----|-----|
| 205 | Reinforced Concrete Column | EA | 8 | 2 | 6 | 0 | 0 |
| 1130 | Cracking (RC and Other) | EA | 2 | 0 | 2 | 0 | 0 |
| 1190 | Abrasion/Wear (PSC/RC) | EA | 4 | 0 | 4 | 0 | 0 |
| (205) -There is light abrasion at the base of the columns. -Bent # 2, Column # 4 has hairline vertical cracking in ahead face near cap juncture. -Bent # 3, Column # 3 has a patched area in the backface with a vertical hairline crack near the patched area. -Bent # 3, Column # 4 has a hairline vertical crack with light scaling in the ahead face. | | | | | | | |
| 210 | Reinforced Concrete Pier Wall | LF | 32 | 0 | 32 | 0 | 0 |
| 1130 | Cracking (RC and Other) | LF | 4 | 0 | 4 | 0 | 0 |
| 1190 | Abrasion/Wear (PSC/RC) | LF | 28 | 0 | 28 | 0 | 0 |
| (210) -Intermediate bents have one or two vertical hairline cracks in each wall. | | | | | | | |
| 215 | Reinforced Concrete Abutment | LF | 130 | 89 | 37 | 4 | 0 |
| 1080 | Delamination/Spall/Patched Area | LF | 1 | 0 | 1 | 0 | 0 |
| 1090 | Exposed Rebar | LF | 2 | 0 | 0 | 2 | 0 |
| 1120 | Efflorescence/Rust Staining | LF | 3 | 0 | 1 | 2 | 0 |
| 1130 | Cracking (RC and Other) | LF | 26 | 0 | 26 | 0 | 0 |
| 1190 | Abrasion/Wear (PSC/RC) | LF | 9 | 0 | 9 | 0 | 0 |
| (215) -Abutments have full height vertical cracks at variable spacing with light efflorescence in the stem walls with diagonal cracks in the exterior edges adjacent to the wing wall junctures. -There is one 3" spall with exposed reinforcing steel in each abutment. -Abutment # 1 Lt has a failing concrete patch under girder #1. -Abutment # 1 has vertical and diagonal cracking in the stem wall and Rt wing wall efflorescence and staining. -Abutment # 2 stem wall has light abrasion along the base. -Abutment # 2 has a diagonal crack that propagates diagonally from under girder # 1 up the wing wall and transversely through the deck overhang. The crack is approximately 1/16" wide in undersurface of deck overhang and approximately 1/8" wide in vertical face of curb. -Abutment #2 has a 3" spall with exposed reinforcing steel under Girder #4. Exposed steel has active corrosion with section loss and appears to be cast into the girder as well as the abutment. | | | | | | | |
| 220 | Reinforced Concrete Pile Cap/Footing | LF | 63 | 63 | 0 | 0 | 0 |
| (220) -Abutment # 1 footing is exposed. Solid rock channel is exposed adjacent to the footing. No apparent scour problems at this inspection. | | | | | | | |
| 234 | Reinforced Concrete Pier Cap | LF | 65 | 50 | 11 | 4 | 0 |
| 1080 | Delamination/Spall/Patched Area | LF | 4 | 0 | 4 | 0 | 0 |
| 1090 | Exposed Rebar | LF | 4 | 0 | 0 | 4 | 0 |
| 1130 | Cracking (RC and Other) | LF | 7 | 0 | 7 | 0 | 0 |
| (234) -Water stains on the substructure indicate that the deck joints leak. -Bent caps have 2" areas of concrete spalling with exposed # 9 wire / snap ties. -Bent # 2 Rt aheadface has a 8" spall with exposed reinforcing steel under girder # 4. | | | | | | | |



Team Lead: Eric West, Inspection Date: 06/09/2022

| ELEMENTS | DESCRIPTION | UNITS | TOTAL | CS1 | CS2 | CS3 | CS4 |
|---|-------------|-------|-------|-----|-----|-----|-----|
| <p>-Bent # 2 Lt has a 10" spall with exposed reinforcing steel visible from the undersurface of the cap located between columns # 1 and # 2 in the original portion of the cap.</p> <p>-Bent # 2 Lt aheadface has vertical crack near the end of the cap.</p> <p>-Bent # 3 aheadface has a 8" spall with exposed reinforcing steel. Bent #3 Lt backface has a 8" delamination and a horizontal crack at the construction widening joint. Bent # 3 Rt backface has horizontal cracking at the base of the cap at the construction joint.</p> | | | | | | | |

60 - Substructure (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

Comment: 06/09/2022 - EJW & JPW - Underwater Type II Inspection conducted on this date. Wading and probing with elevated and turbid water conditions indicate:

- Abutment #1 footing is exposed with approximately 5" of the vertical edge exposed but appears to be keyed into rock channel that is partially exposed.
- Bent # 2 footings have cover.
- Bent # 3 footings have cover.
- Abutment #2 footing has cover.
- No apparent scour problems at this inspection.



Asset #A1647(Routine, Underwater type 2)
US Highway 64 over Hicks Creek-Franklin Co.

Location: 7.06 MI W JOHNSON CO LI

Team Lead: Eric West, Inspection Date: 06/09/2022

Culvert

| ELEMENTS | DESCRIPTION | UNITS | TOTAL | | | | |
|----------|-------------|-------|-------|-----|-----|-----|-----|
| | | | | CS1 | CS2 | CS3 | CS4 |



Elevation



Elevation



Roadway



Typical driving surface of the deck.



Span # 1 typical undersurface of the deck.



Span #2 typical undersurface of the deck.



Span #3 typical undersurface of the deck.



Abutment #1 typical.



Bent #2 typical.



Bent # 3 typical.



Underwater Type II Inspection.



Span #1 Bent #2 spalling with exposed reinforcing steel.



Span #2 Lt spalling with exposed reinforcing steel



Span #2 bay # 2 & 3 spalling with exposed reinforcing steel in the expansion dam.



Span #3 bay # 3 & 4 spalling with exposed reinforcing steel in the expansion dam.



Bent #2 asphalt deterioration over the deck joint.



Bent #3 asphalt deterioration over the deck joint.



Span #1 Girder #4 Bent #2 spalling with exposed reinforcing steel.



Span #1 Girder #3 Bent #2 spalling with exposed reinforcing steel.



Bent # 2 Span # 2 Girder # 3 & 4 spalling with exposed reinforcing steel.



Bent #2 Span #2 Girder #2 spalling with exposed reinforcing steel.



Bent # 3 Girder #2 spalling with exposed reinforcing steel.



Bent #3 Girder #3 spalling with exposed reinforcing steel.



Bent #3 girder #4 spalling with exposed reinforcing steel.



Span #3 Girder #1 Abutment #2 shear type cracks in the girder.



Span #3 Girder #5 exterior shear type crack.



Abutment #1 Lt failing patch under girder #1.



Abutment #1 Rt vertical and diagonal cracks with efflorescence buildup.



Abutment #2 Lt diagonal cracking in the wing wall.



Bent #3 aheadface spalling with exposed reinforcing steel.



Bent #3 Span #3 Girder #5 bearing with active corrosion and pack rust.



Typical bridge rail.

Maintenance Needs

Date Reported: 06/17/2019
Priority: D- Routine
Type of Work: Repair (General)
Status: Monitor
Component: Element

Deficiency Description

Expansion bearings -
Expansion bearings have active corrosion and flaking rust.

Remarks



Expansion bearings have active corrosion and
flaking rust.

Date Reported: 04/02/2015
Priority: D- Routine
Type of Work: Repair (General)
Status: Monitor
Component: Element

Deficiency Description

Substructure -
The substructure caps have areas of shallow spalling with exposed reinforcing steel.

Remarks



The substructure caps have areas of shallow spalling with exposed reinforcing steel.

Date Reported: 04/02/2015
Priority: C - Important
Type of Work: Repair (General)
Status: Monitor
Component: Element

Deficiency Description

Superstructure -

Concrete girders have vertical hairline Flexure cracks on approx. 12" centers. The exterior girders have light scale. The ends of the original girders have large delaminated areas and spalls with exposed reinforcing steel at Bents # 2 & 3 where the expansion joints leak water on to the ends of the girders. The exposed longitudinal primary reinforcing steel and secondary steel bands have active corrosion with up to 1/8" section loss. Girders # 1 and # 5 of span # 3 have shear type cracks adjacent to abutment # 2. No apparent changes since last inspection.

Remarks



Span 1, girder 4-Spalling with exposed primary reinforcing steel over bent 2.



Span 2, girders 3 and 4-Spalling with exposed reinforcing steel.



Span 3, girder 1 at abutment 2-Hairline shear type crack.



Span 3, girder 1 at abutment 2-Hairline shear type crack.



Girder 1 at abutment 2-Shear type crack.



Span 2, girder 4 at bent 3-Spall with exposed reinforcing steel.



Span 2, girder 4 at bent 2-Spall with exposed reinforcing steel.



Spalling with exposed reinforcing steel to end of girder # 3 of spans 1 and 2 over bent 2.

Date Reported: 04/23/2014
Priority: D- Routine
Type of Work: Repair (General)
Status: Monitor
Component: Element

Deficiency Description

Deck -

The asphalt is breaking apart over the expansion joints with potholes forming in the driving surface. Vegetation in the gutters restrict the drain openings.

Remarks



Bent 3-Asphalt breaking apart.



Potholes in asphalt over intermediate bents.

Date Reported: 05/01/2018
Priority: D- Routine
Type of Work: Repair (General)
Status: Monitor
Component: Miscellaneous

Deficiency Description

Expansion joint dams / diaphragms -
Expansion joint dams / diaphragms have spalls with exposed reinforcing steel that is visible from the undersurface of the deck.

Remarks



Expansion joint dams / diaphragms have spalls
with exposed reinforcing steel that is visible from
the undersurface of the deck.

Date Reported: 05/01/2018
Priority: D- Routine
Type of Work: Repair (General)
Status: Monitor
Component: Element

Deficiency Description

Expansion Joints -
Expansion joints leak water on the substructure and on the ends of the concrete deck girders.

Remarks



Expansion joints leak water on the substructure and on the ends of the concrete deck girders.



Expansion joints leak water on the substructure and on the ends of the concrete deck girders.

Date Reported: 05/13/2020
Priority: D- Routine
Type of Work: Repair (General)
Status: Monitor
Component: Substructure

Deficiency Description

Substructure / Deck -

The Monolithic Northeast wing wall on the left side of abutment # 2 has a diagonal crack that propagates diagonally from under girder # 1 up the wing wall and transversely through the deck overhang. The crack is approximately 1/16" wide in undersurface of deck overhang and approximately 1/8" wide in vertical face of curb.

Remarks



The Monolithic Northeast wing wall on the left side of abutment # 2 has a diagonal crack that propagates diagonally from under girder # 1 up the wing wall and transversely through the deck overhang. The crack is approximately 1/16" wide in undersurface of deck overhang and approximately 1/8" wide in vertical face of curb.



Asset #A1647(Routine, Underwater type 2)
US Highway 64 over Hicks Creek-Franklin Co.

Location: 7.06 MI W JOHNSON CO LI

Team Lead: Eric West, Inspection Date: 06/09/2022

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 | |

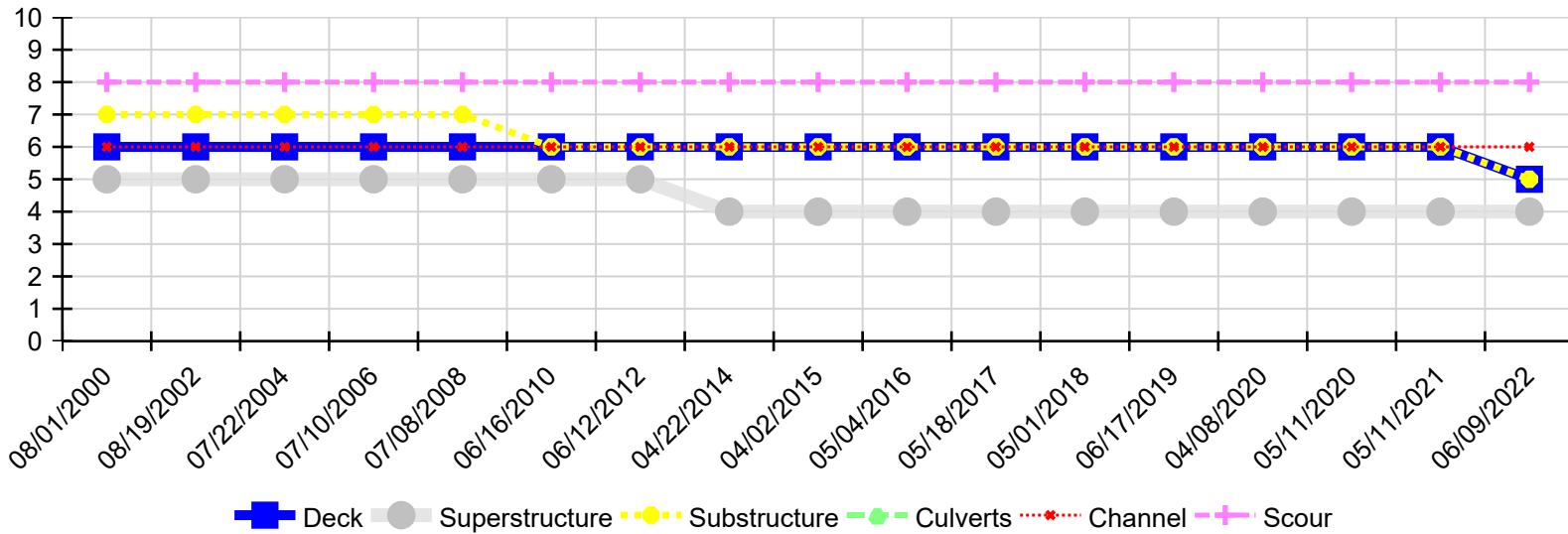


Asset #A1647 (Routine, Underwater type 2)
US Highway 64 over Hicks Creek-Franklin Co.

Location: 7.06 MI W JOHNSON CO LI

Team Lead: Eric West, Inspection Date: 06/09/2022

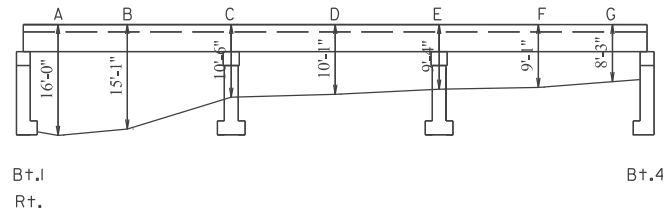
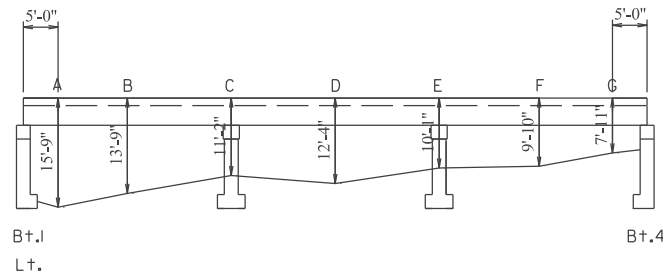
Condition History



| Inspection Date | Deck | Superstructure | Substructure | Culverts | Channel | Scour |
|-----------------|------|----------------|--------------|----------|---------|-------|
| 06/09/2022 | 5 | 4 | 5 | N | 6 | 8 |
| 05/11/2021 | 6 | 4 | 6 | N | 6 | 8 |
| 05/11/2020 | 6 | 4 | 6 | N | 6 | 8 |
| 04/08/2020 | 6 | 4 | 6 | N | 6 | 8 |
| 06/17/2019 | 6 | 4 | 6 | N | 6 | 8 |
| 05/01/2018 | 6 | 4 | 6 | N | 6 | 8 |
| 05/18/2017 | 6 | 4 | 6 | N | 6 | 8 |
| 05/04/2016 | 6 | 4 | 6 | N | 6 | 8 |
| 04/02/2015 | 6 | 4 | 6 | N | 6 | 8 |
| 04/22/2014 | 6 | 4 | 6 | N | 6 | 8 |
| 06/12/2012 | 6 | 5 | 6 | N | 6 | 8 |
| 06/16/2010 | 6 | 5 | 6 | N | 6 | 8 |
| 07/08/2008 | 6 | 5 | 7 | N | 6 | 8 |
| 07/10/2006 | 6 | 5 | 7 | N | 6 | 8 |
| 07/22/2004 | 6 | 5 | 7 | N | 6 | 8 |
| 08/19/2002 | 6 | 5 | 7 | N | 6 | 8 |
| 08/01/2000 | 6 | 5 | 7 | N | 6 | 8 |

Chan Prof AI647 20220609

Shots taken at
curb top
Water elevation
12ft.



BRIDGE INSPECTION REPORT FORM III

Inspected By: EJW&JPW

Date: 06092022

District: 4 Co.: Franklin Rte.: 64 Sect/Zone 03/0 Log Mile: 14 Str. No.: AI647