

# Oklahoma Dept. of Transportation - Bridge Inspection Report

|                                    |  |                                      |  |                        |  |                               |  |
|------------------------------------|--|--------------------------------------|--|------------------------|--|-------------------------------|--|
| <b>NBI No.:</b><br>040850000000000 |  | <b>Structure No.:</b><br>0902 0000 X |  | <b>Local ID:</b><br>-1 |  | <b>Suff. Rating:</b><br>21.10 |  |
|------------------------------------|--|--------------------------------------|--|------------------------|--|-------------------------------|--|

| <b>IDENTIFICATION</b>   |            |            |           | <b>INSPECTION</b>   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
|---|------------|------------|-----------|---|------------|-------|-------|--|------------|------------|-------|------------|------------|------|--|---|-----------|-----------|-----------|-----|---|---|-----------|-----------|-----------|-----|---|---|--|----|----|-----|---|---|-----------|-----------|-----------|
| <b>Bridge Description:</b><br>38-100' PONY TRUSS & 2-36' I-BM. SPANS(BRIDGEPORT BR.)  |            |            |           | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Type</th> <th>Insp. Req.</th> <th>Insp. Done</th> <th>Freq.</th> <th>Insp. Date</th> <th>Next Insp.</th> </tr> <tr> <td>NBI:</td> <td></td> <td>0</td> <td>12 months</td> <td>10/5/2017</td> <td>10/5/2018</td> </tr> <tr> <td>FC:</td> <td>Y</td> <td>0</td> <td>12 months</td> <td>10/5/2017</td> <td>10/5/2018</td> </tr> <tr> <td>UW:</td> <td>N</td> <td>0</td> <td></td> <td>NA</td> <td>NA</td> </tr> <tr> <td>OS:</td> <td>Y</td> <td>1</td> <td>12 months</td> <td>4/11/2018</td> <td>4/11/2019</td> </tr> </table>  |            |       |       | Type   | Insp. Req. | Insp. Done | Freq. | Insp. Date | Next Insp. | NBI: |  | 0 | 12 months | 10/5/2017 | 10/5/2018 | FC: | Y | 0 | 12 months | 10/5/2017 | 10/5/2018 | UW: | N | 0 |  | NA | NA | OS: | Y | 1 | 12 months | 4/11/2018 | 4/11/2019 |
| Type  | Insp. Req. | Insp. Done | Freq.     | Insp. Date  | Next Insp. |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| NBI:  |            | 0          | 12 months | 10/5/2017   | 10/5/2018  |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| FC:   | Y          | 0          | 12 months | 10/5/2017   | 10/5/2018  |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| UW:   | N          | 0          |           | NA  | NA         |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| OS:   | Y          | 1          | 12 months | 4/11/2018   | 4/11/2019  |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 1. State: 40 Oklahoma<br>2. Division: Division 4<br>3. County: CANADIAN<br>4. City: Unknown<br>Admin Area: L/T Truss<br>5a. On/Under: Route On Structure<br>5b. Kind of Hwy: 2 U.S. Hwy<br>5c. Lvl of Srvc: 1 Mainline<br>5d. Route No.: 00281<br>5e. Dir. Sufx: 0 N/A (NBI)  |            |            |           | 7. Facility Carried: U.S. 281<br>6. Feat. Intersect: S. CANADIAN RIVER<br>9. Location: CADDO CANADIAN CL<br>11. Mile Post: NA<br>13. LRS Inv. / Sub Rte: 0902 0000 / 01<br>16. Latitude: 35° 32' 25.00"<br>17. Longitude: 098° 19' 22.00"<br>98. Border Brdg: Unknown (P)<br>% Responsible: 0.00<br>99. Border Brdg #: Unknown  |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| <b>STRUCTURE TYPE AND MATERIALS</b>   |            |            |           | <b>CLASSIFICATION</b>   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 43a/b. Main Span: 3 Steel / 10 Truss-Thru<br>44a/b. Appr. Span: 3 Steel / Stringer/Girder<br>45. # of Main Spans: 38<br>46. # of Appr. Spans: 2<br>107. Deck Type: 1 Concrete-Cast-in-Place<br>108a. Wearing Surface: 6 Bituminous<br>108b. Membrane: 8 Unknown<br>108c. Deck protection: 8 Unknown   |            |            |           | 12. Base Hwy Net.: On Base Network<br>20. Toll Facility: 3 On free road<br>21. Custodian: State<br>22. Owner: State<br>26. Function Class: 06 Rural Minor Arter<br>37. Historical Sig.: 2 Br eligible for NRHP<br>100. Def. Hwy: 0 Not a STRAHNET hwy<br>101. Parallel Str.: No    bridge exists<br>102. Traffic Dir.: 2 2-way traffic<br>103. Temp. Str.: Not Applicable (P)<br>104. Hwy System: 0 Not on NHS<br>105. Fed Land Hwy: 0 N/A (NBI)<br>110. Defense Hwy: 0 Not a STRAHNE<br>112. NBIS Length: Long Enough  |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| <b>AGE AND SERVICE</b>  |            |            |           | <b>CONDITION</b>  |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 19. Detour Length: 11.8 mi<br>27. Year Built: 1933<br>28a/b. Lanes on/un: 2 / 0<br>29. ADT: 1,100<br>30. Year of ADT: 2016<br>42a/b. Type of Svc on/un: 1 Highway / 5 Waterway  |            |            |           | 58. Deck: 5 Fair<br>62. Culvert: N N/A (NBI)<br><b>Flowline Notes</b><br>OCT-2017: 29.7' TOC at L4, west truss, span 10<br>OCT-2016: 27.3' TOC at L3, west truss, span 6<br>59. Sup.: 4 Poor<br>71. Chan./Chan. Prot.: 5 Bank Prot Eroded<br>60. Sub: 5 Fair  |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| <b>GEOMETRIC DATA</b>   |            |            |           | <b>LOAD RATING AND POSTI</b>  |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 10. Vert. Clearance: 99.99 ft<br>32. Appr Rwy Width: 30.00 ft<br>33. Median: 0 No median<br>34. Skew: 0.00°<br>35. Struct. Flared: 0 No flare<br>47. Horizontal Clr: 24.00 ft<br>48. Length Max Span: 100.07 ft<br>49. Struct. Length: 3,937.01 ft  |            |            |           | 31. Design Load: 2 M 13.5 (H 15)<br>41. Post. Status: P Posted for load<br>63. Op / 65. Inv. Rating Meth.: 1 LF Load Factor / 1 LF Load Factor<br>64. Operating Rating (tons) (H/HS/3-3):<br><table border="1" style="display: inline-table; margin-right: 10px;"> <tr><td>16.50</td></tr> <tr><td>15.00</td></tr> </table> <table border="1" style="display: inline-table; margin-right: 10px;"> <tr><td>16.56</td></tr> <tr><td>15.06</td></tr> </table> <table border="1" style="display: inline-table;"> <tr><td>16.53</td></tr> <tr><td>37.70</td></tr> </table> 66. Inventory Rating (tons) (H/HS/3-3):<br>70. Posting: 2 20.0-29.9% below                  |            |       |       | 16.50  | 15.00      | 16.56      | 15.06 | 16.53      | 37.70      |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 16.50   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 15.00   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 16.56   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 15.06   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 16.53   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 37.70   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| <b>OKLAHOMA ITEMS</b>   |            |            |           | <b>APPRAISAL</b>  |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 200c. Temperature: 75<br>200d. Weather: Clear<br>201. Struc.Stl. ASTM Desig.: -1 / -1<br>202. Waterprf. Membrane: -1<br>Date Installed: 01/01/1901<br>203. Type Exp. Device: Sliding Plate<br>Open Joint-No Device -<br>204. Type of Railing: Metal Railing (other)<br>205. Material Quantity: 10.00<br>208a. Type of Abutment: Pedestal<br>b. Type of Foundation: Bears on Natural Found.<br>209. Type of Pier/Found.: 2 / Yes<br>No Piling/Drilled Shaft<br>210. Foundation Elev.:<br><table border="1" style="display: inline-table; margin-right: 10px;"> <tr><td>-1.00</td></tr> <tr><td>-1.00</td></tr> </table> <table border="1" style="display: inline-table; margin-right: 10px;"> <tr><td>-1.00</td></tr> <tr><td>-1.00</td></tr> </table> 211. Wear.Surf.Prot.Sys: None<br>Date Installed: 01/01/1901<br>213. Utilities Attached: |            |            |           | -1.00   | -1.00      | -1.00 | -1.00 | 36a. Brdg Rail: 0 Substandard<br>36b. Transition: 0 Substandard<br>36c. Appr. Rail: 0 Substandard<br>36d. Appr. Rail Ends: 0 Substandard<br>67. Str Evaluation: 4 Minimum Tolerab<br>68. Deck Geom.: 4 Tolerable<br>69. Vert./Horiz. Undclr.: N Not applicab<br>71. Waterway Adeq.: 5 Above Tolerable<br>72. Appr. Alignment: 6 Equal Min Criteri<br>113. Scour Critical: 7 Countermeasures<br><b>PROPOSED IMPROVEMEN</b><br>94. Bridge Cost: \$6,781,689<br>95. Roadway Cost: \$4,500,000<br>96. Total Cost: \$11,920,275<br>97. Yr. of Cost Est.: 2015<br>75. Type of Work: 31 Repl-Load Capacit<br>76. Lngth of Improvement: 3,937.0 ft<br>114. Future ADT: 1,760<br>115. Yr. of Future ADT: 2036<br><b>NAVIGATION DATA</b><br>38. Nav. Control: Permit Not Required<br>39. Vertical Clearance: 0.0 ft<br>40. Horizontal Clearance: 0.0 ft<br>111. Pier Protect.: 1 Not Required<br>116. Lift Bridge Vert. Clr.: 0.0 ft |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| -1.00   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| -1.00   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| -1.00   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| -1.00   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
| 214a. Posted Weight Limit: 151515<br>b. Posted Speed Limit:<br>c. Narrow/1way Bridge Sign:<br>d. Vertical Clr. Sign: No<br>Adv. Warning Sign: No<br>e. Navigation Lights?: No<br>Working/Not Working: No<br>215. Overpass: U.S. HIGHWAY<br>221. Substr.Cond.(U/W):<br>222. Fill Over RCB:<br>223. Appr. Slab/Rwy Cond.: 3<br>225. Paint Type/Ovrct: Red Lead 3 Coat Syst<br>N/A<br>226. Date Painted: 1933<br>227. Paint Color: Silver<br>233. Deck Forming:<br>238. School Bus Rte.: Current & Desired rou<br>240. Appr. Rwy Type.: Concrete<br>243. Grdr Spacing/No.: /   |            |            |           | 244. Span Lengths:<br>245. Girder Depth: 48.00<br>246a. Type of Overlay: AC Overlay<br>b. Overlay Thickness: 3.00<br>c. Overlay Date: 12/04/2003<br>d. Ovlly Depth Changed >1": -<br>247. Protective Systems<br><table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table> 248. # Field Splices w/ Corrosion:<br>249. Scour Crit. POA Exists?: -<br>250. Headwall:<br>254. Thru Truss Type:<br>257a. OkiePROS Truck Routing: Yes<br>258. Plans w/ Found. in ODOT File:<br>259. Scour Eval. in ODOT File:<br>263. Interchange at Intersection: No<br>264. Interstate Milepoint: -1.00 |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
|   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
|   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |
|   |            |            |           |   |            |       |       |  |            |            |       |            |            |      |  |   |           |           |           |     |   |   |           |           |           |     |   |   |  |    |    |     |   |   |           |           |           |

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| <u>NBI No.:</u> | <u>Structure No.:</u> | <u>Local ID:</u> | <u>Suff. Rating:</u> |
|-----------------|-----------------------|------------------|----------------------|
| 040850000000000 | 0902 0000 X           | -1               | 21.10                |

Inspection Date: 4/11/18      Reported By:      Brendan Prendeville

Invoice No.:      Inspected With:      -1

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# Oklahoma Dept. of Transportation - Bridge Inspection Report

**NBI No.:**  
**04085000000000**

**Structure No.:**  
**0902 0000 X**

**Local ID:**  
**-1**

**Suff. Rating:**  
**21.10**

## ELEMENT CONDITION STATE DATA

| Elem. / En   | Description              | Unit  | Total Qty  | % 1 | Qty. 1    | % 2  | Qty. 2   | % 3  | Qty. 3     | % 4 | Qty. 4 |
|--|--------------------------|-------|------------|-----|-----------|------|----------|------|------------|-----|--------|
| 12 / 1   | Re Concrete Deck         | sq.ft | 94,488.00  | 0%  | 0.00      | 0%   | 0.00     | 100% | 94,488.00  | 0%  | 0.00   |
| Many portions of the curbs exhibit spalls and/or cracking with corroding reinforcing steel <sup>^</sup> especially over the ends of the intermediate floor beams. Some spalls have been patched in isolated areas throughout the deck.   |                          |       |            |     |           |      |          |      |            |     |        |
| 107 / 1  | Steel Opn Girder/Beam    | ft    | 259.00     | 67% | 174.00    | 33%  | 85.00    | 0%   | 0.00       | 0%  | 0.00   |
| FX – The connection angles for the beams to pier beam 39 are deformed due to the apparent approach pavement growth and pier beam sweep. The beams are still supported by the original pier beams at piers 1 and 39; however, the added pier beam will support the beams should the connection angles fail.   |                          |       |            |     |           |      |          |      |            |     |        |
| 113 / 1  | Steel Stringer           | ft    | 9,501.00   | 0%  | 0.00      | 65%  | 6,175.60 | 35%  | 3,325.40   | 0%  | 0.00   |
| PX – Cracks were observed in the web of numerous stringers at the top flange cope and stringer connection angles. Numerous broken rivets were observed at the connection angles. Section loss exists through the exterior stringers at the end floor beams at numerous locations.  |                          |       |            |     |           |      |          |      |            |     |        |
| 120 / 1  | Steel Truss              | ft    | 7,600.00   | 0%  | 0.00      | 65%  | 4,940.00 | 35%  | 2,660.00   | 0%  | 0.00   |
| PX – Impact damage at west U1U2 <sup>^</sup> span 31 and west U1L1 span 37. FX– Span 37 <sup>^</sup> west U1 gusset plate – A 5/16-inch long crack in the bottom edge of the inboard gusset plate; Impact damage exists to the truss web members at multiple locations; West U1U2 in span 37 is bowed globally to the east 1/4in.; Impact damage exists on the inboard flanges of the upper chord. Pack rust is common at the end post connection to the inboard gusset plate at the lower chord connection; Horizontal cracks were observed in the inboard truss gusset plate between the bearing pin and the end floor beam. All eight locations noted during the previous Fracture Critical inspection have been strengthened with the addition of a welded steel angle on the inboard face. Vehicular collision damage exists at numerous locations of the truss end posts. See FC Report. |                          |       |            |     |           |      |          |      |            |     |        |
| 152 / 1  | Steel Floor Beam         | ft    | 6,155.00   | 0%  | 0.00      | 62%  | 3,816.10 | 38%  | 2,338.90   | 0%  | 0.00   |
| PX – Active section loss with corrosion holes is common on the floor beams under the expansion joints; FX – Cracks were observed in the web of the end floor beams and intermediate floor beams in many locations.   |                          |       |            |     |           |      |          |      |            |     |        |
| 162 / 1  | Stl Gus Plate            | each  | 1,672.00   | 0%  | 0.00      | 45%  | 760.00   | 55%  | 912.00     | 0%  | 0.00   |
| PX- Numerous horizontal cracks were observed in the inboard truss gusset plates above the bearings <sup>^</sup> see report for locations and crack lengths; FX-LC inboard gusset plates typically bowed at L0 and L5 due to pack rust.   |                          |       |            |     |           |      |          |      |            |     |        |
| 205 / 1  | Re Conc Column           | each  | 78.00      | 0%  | 0.00      | 99%  | 77.00    | 1%   | 1.00       | 0%  | 0.00   |
| FX – A 7/8-inch maximum wide crack exists in the capital of the east column of pier 3 which is emanating from the span 2 bearing anchor bolt.  |                          |       |            |     |           |      |          |      |            |     |        |
| 215 / 1  | Re Conc Abutment         | ft    | 49.20      | 50% | 24.60     | 50%  | 24.60    | 0%   | 0.00       | 0%  | 0.00   |
| No significant deficiencies were noted in the abutments <sup>^</sup> except for moderate debris on the bearing seats of both abutments and map cracking exposing a few reinforcing bars at the ends of the south abutment.   |                          |       |            |     |           |      |          |      |            |     |        |
| 301 / 1  | Pourable Joint Seal      | ft    | 495.00     | 0%  | 0.00      | 0%   | 0.00     | 50%  | 247.50     | 50% | 247.50 |
| PX – Spalling of the headers was observed along the joints at piers 7 <sup>^</sup> 9 <sup>^</sup> 15 <sup>^</sup> 25 <sup>^</sup> 27 <sup>^</sup> and 31; The poured joint seals typically are deteriorated and show evidence of leaking. Many of the poured seals were never installed at many of the hrepaired header locations <sup>^</sup> leaving only the form board to fill the joint.  |                          |       |            |     |           |      |          |      |            |     |        |
| 310 / 1  | Elastomeric Bearing      | each  | 4.00       | 50% | 2.00      | 0%   | 0.00     | 50%  | 2.00       | 0%  | 0.00   |
| PX – Elastomeric pads are missing at the supplemental pier beams under beams 1 through 4 at pier 1 and at beams 2 and 3 at pier 39 with heavy pack rust forming at beam 5 <sup>^</sup> pier 1. The pads appear to be walking at pier 39 under beams 4 and 5.   |                          |       |            |     |           |      |          |      |            |     |        |
| 311 / 1  | Moveable Bearing         | each  | 86.00      | 0%  | 0.00      | 71%  | 61.00    | 29%  | 25.00      | 0%  | 0.00   |
| FX – Wear causing grooving in the expansion bearing pins and enlarging of the pin hole in the connecting gusset plates are common throughout the spans. The wear is a result of bearing rotation under live loads. This condition is most severe at L0 span 38 over pier 37 <sup>^</sup> which has 3/16-inch total wear to the pin and gusset plate. Heavy pack rust with minor associated pitting is widespread on and between the bearing components.  |                          |       |            |     |           |      |          |      |            |     |        |
| 313 / 1  | Fixed Bearing            | each  | 84.00      | 0%  | 0.00      | 100% | 84.00    | 0%   | 0.00       | 0%  | 0.00   |
| Surface corrosion exists the the fixed bearings..  |                          |       |            |     |           |      |          |      |            |     |        |
| 330 / 1  | Metal Bridge Railing     | ft    | 7,600.00   | 0%  | 0.00      | 95%  | 7,220.00 | 5%   | 380.00     | 0%  | 0.00   |
| FX- Pack rust is typical between the metal bridge railing, truss end posts and web members. Small cracks were observed in the railing where the flange and web have been coped.  |                          |       |            |     |           |      |          |      |            |     |        |
| 510 / 1  | Wearing Surfaces         | sq.ft | 94,488.00  | 80% | 75,488.00 | 10%  | 9,500.00 | 10%  | 9,500.00   | 0%  | 0.00   |
| PX – The asphalt wearing surface has unsealed longitudinal and transverse cracks throughout the spans. The deck growing in each span causing rotation/sweep in floor beams..   |                          |       |            |     |           |      |          |      |            |     |        |
| 515 / 1  | Steel Protective Coating | sq.ft | 406,533.00 | 0%  | 0.00      | 0%   | 0.00     | 100% | 406,533.00 | 0%  | 0.00   |
| PX – Corrosion and significant section loss are occurring at many locations on the lower chord <sup>^</sup> floor beams and stringers due to deck drainage passing through joints. Widespread section loss and corrosion holes exist in the exterior stringers and end floor beams.  |                          |       |            |     |           |      |          |      |            |     |        |
| 859 / 1  | Soffit                   | (EA)  | 1.00       | 0%  | 0.00      | 0%   | 0.00     | 100% | 1.00       | 0%  | 0.00   |
| FX- Spalls exposing corroded rebar are common in the underside of the deck at the expansion joints due to leakage thru joints. The underside of the deck exhibits transverse cracks with light efflorescence. Spalls and deteriorated concrete exist in exterior stringer bays at isolated locations.  |                          |       |            |     |           |      |          |      |            |     |        |
| 877 / 1  | St. Stringer End(5Ft)    | (LF)  | 9,501.00   | 0%  | 0.00      | 50%  | 4,750.50 | 50%  | 4,750.50   | 0%  | 0.00   |
| PX- Cracks were observed in the web of numerous stringers at the top flange cope <sup>^</sup> see FC report for locations; Cracks in the stringer connection angles were observed at numerous locations at the end floor beams <sup>^</sup> see FC report for locations; Severe section loss with corrosion holes exists through exterior stringer webs.   |                          |       |            |     |           |      |          |      |            |     |        |
| 909 / 1  | Pourable Fix Jt.Seal     | (LF)  | 495.40     | 0%  | 0.00      | 0%   | 0.00     | 50%  | 247.70     | 50% | 247.70 |
| The poured seal joints typically are deteriorated and show evidence of leaking..   |                          |       |            |     |           |      |          |      |            |     |        |
| 956 / 1  | St. Cracking/Fatigue     | (SF)  | 1.00       | 0%  | 0.00      | 0%   | 0.00     | 100% | 1.00       | 0%  | 0.00   |
| PX- Numerous cracks exist in the stringer copes <sup>^</sup> stringer connection angles <sup>^</sup> end floor beams <sup>^</sup> and interior floor beams. See FC report.   |                          |       |            |     |           |      |          |      |            |     |        |
| 957 / 1  | Pack Rust Smart Flag     | (EA)  | 1.00       | 0%  | 0.00      | 0%   | 0.00     | 100% | 1.00       | 0%  | 0.00   |
| PX – Pack rust is common at the end post connection to the inboard gusset plate at the lower chord connection; FX – Pack rust is forming at many of the bridge railing to inboard end post channel connections.  |                          |       |            |     |           |      |          |      |            |     |        |

# Oklahoma Dept. of Transportation - Bridge Inspection Report

| NBI No.:  |                       | Structure No.: |      | Local ID: |      | Suff. Rating: |      |      |      |    |      |
|---|-----------------------|----------------|------|-----------|------|---------------|------|------|------|----|------|
| 040850000000000   |                       | 0902 0000 X    |      | -1        |      | 21.10         |      |      |      |    |      |
| 961 / 1   | Scour SF              | (EA)           | 1.00 | 0%        | 0.00 | 0%            | 0.00 | 100% | 1.00 | 0% | 0.00 |
| PX Local scour exists around the columns at piers 5 through 9 and pier 23. The top of the column foundation is exposed up to 4 1/2 feet at these locations. Local scour was also observed at the columns in the flood plain north of the river. |                       |                |      |           |      |               |      |      |      |    |      |
| 962 / 1   | Super. Traffic Impact | (EA)           | 1.00 | 0%        | 0.00 | 0%            | 0.00 | 100% | 1.00 | 0% | 0.00 |
| PX-Collision damage to end posts^ upper chord^ verticals and diagonals at numerous locations.   |                       |                |      |           |      |               |      |      |      |    |      |
| 963 / 1   | Steel Section Loss SF | (EA)           | 1.00 | 0%        | 0.00 | 0%            | 0.00 | 100% | 1.00 | 0% | 0.00 |
| PX- Corrosion holes through stringer webs^ floor beam webs at numerous locations; FX- Corrosion of the lower chord has caused section loss on inboard top flange.   |                       |                |      |           |      |               |      |      |      |    |      |
| 965 / 1   | Debris SF             | (EA)           | 1.00 | 0%        | 0.00 | 100%          | 1.00 | 0%   | 0.00 | 0% | 0.00 |
| Accumulations of drift exists under spans 5 through 10. Heaviest accumulations at piers 7 and 10.   |                       |                |      |           |      |               |      |      |      |    |      |
| 969 / 1   | OutOfPlane Dist./Load | (EA)           | 1.00 | 0%        | 0.00 | 100%          | 1.00 | 0%   | 0.00 | 0% | 0.00 |
| PX – Pier beams 1 and 39 have severe sweep and have been sistered.  |                       |                |      |           |      |               |      |      |      |    |      |
| 973 / 1   | Horizontal Force SF   | (EA)           | 1.00 | 0%        | 0.00 | 0%            | 0.00 | 100% | 1.00 | 0% | 0.00 |
| PX-Significant approach pavement pressure occurs at both abutments pushing inward from both ends as evidenced by the movement of the deck^ sheared rivets on stringers and anchor bolts missing for bearings.                                   |                       |                |      |           |      |               |      |      |      |    |      |

## BRIDGE NOTES:

(38) 100-foot long riveted pony trusses with (2) 36-foot long steel beam approach spans.

OS Inspection Items: See tables in 2017-10-05 FC report appendix for list of the following: Inspect cracks in stringer web copes, stringer connection angles, floor beams web copes, lower chord gusset plates above bearings for growth, stringer connections at end floor beams for additional loss or broken rivets; pier beams and supplemental pier beams at piers 1 and 39 for distress; misalignment of W U1U2 sp 37; floor beam section loss; scour from stream in spans 10 and 11; areas of collision damage on deck to steel trusses; east bearing at pier 3 for any undermining.

Posted 15 tons due to extensive deterioration to bridge.

## INSPECTION NOTES: 4/11/18

PX – Strengthen stringer webs in several spans; Reinforce/replace the damaged concrete bridge railing in spans 1 and 40; Seal cracks in wearing surface and approach pavement; Remove debris from along the curbs; Remove loose concrete and patch the joint headers; Reseal the expansion joints; Install elastomeric pads or steel shims at missing locations on the supplemental pier beams over piers 1 and 39; Monitor cracks in stringer and floor beam webs. Drill crack tips that grow significantly; Repair cracks in stringer connection angles; Repair section loss in stringer and floor beam webs where corrosion holes and/or heavy section loss exists; Replace sheared rivets in the vertical connection, upper chord, and end post with bolts near west U1 in spans 31 and 37; Remove pack rust and apply caulking and paint along vertical edges of end gusset plates to arrest/mitigate ongoing edge bowing; Clean and paint steel below deck within 5 feet of the joints; Add rip rap around the piers in spans 10 and 11 in the main channel to arrest/mitigate the ongoing scour; Install full depth pressure relief joints on both approaches to mitigate ongoing effects of pavement pressure.

FX – Monitor: Beam connections to the original pier beams at piers 1 and 39 for further cracking; Notches and cuts in inboard flange and gusset plate at west U1L2, span 31; Pack rust and section loss in truss members; Spalls and corroding reinforcing steel in soffit; Lower chord gusset plates over bearings for development of horizontal cracks; Cracks at FB copes and stringer connections; Fatigue prone strich welds of angle strengthening at FB 0, span 2; Corrosion holes in floor bracing system; Plug welds in diagonals of spans 1 and 2 near railing connections; Bowed members near locations of collision damage; Bowed gusset plates near bearings; Bullet strike damage to east truss, span 4; Cracking/spalling at east column capital, pier 3 for condition which would undermine bearing; Expansion bearing pins for signs of additional wear or distress.