OKLAHOMA DEPARTMENT OF TRANSPORTATION - Bridge Inspection Report

NBI No.: 04076 Structure No.: 0814 1711 X Local ID:32 Suff. Rating: 61.3 ND Health Index: 89.2

IDENTIFICATION

Description: 30',6-36',50',30' I-BM. SPANS & 2-20' TOWER SPANS
1. State: Oklahoma 2. SHD District: Division 7
3. County Code: CADDO 4. Place Code: Unknown
Admin. Area: Unknown
5. Inventory Route (Route On Structure): 1 - 2 - 1 - 00281 - 0
6. Feature Intersected: CREEK
7. Facility Carried: U.S. 281 U.S. 281
9. Location: 1.1 W CANADIAN C/L 11. Mile Post: 17.106 mi
13. LRS Inv. Route / Subroute.: 0814HF0000 03
16. Latitude: 35 32 10.23 17. Longitude: 098 20 28.69
98. Border Br. Code: Unknown (F) % Resp.: 0 99. Border Br. #: Unknown

STRUCTURE TYPE AND MATERIALS

43. Main Span Material and Design Type
Steel Stringer/Girder
44. Approach Span Material and Design Type
Unknown (NBI) Unknown (P)
45. No. of Spans Main Unit: 11 46. No. of Approach Spans: 0
107. Deck Type: 1 Concrete-Cast-in-Place
108A. Wearing Surface: 1 Monolithic Concrete
108B. Membrane: 8 Unknown
108C. Deck Protection: 8 Unknown

AGE AND SERVICE

27. Year Built: 1933 106. Year Reconstructed: Unknown
28A. Lanes on: 2 28B. Lanes Under: 0 19. Detour Length: 11.8 mi
29. ADT: 1400 30. Year of ADT: 2011 109. Truck ADT %: 16
42A. Type of Service on: 1 Highway
42B. Type of Service under: 5 Waterway

GEOMETRIC DATA

10. Inv. Rte. Min. Vert. Clr.: 328.1 ft
32. Approach Roadway Width (W/ Shoulders): 24.0 ft
Deck Area: 10,129.6 sq. ft 33. Median: 0 No median
34. Skew: 0 35. Structure Flared: 0 No flare
47. Inv. Rte. Total Horiz. Clr.: 24.0 ft
48. Length Maximum Span: 49.9 ft 49. Structure Length: 378.0 ft
50A. Curb/Sdwlk Width L: 0.0 ft 50B. Curb/Sidewalk Width R: 0.0 ft
51. Width Curb to Curb: 24.0 ft 52. Width Out to Out: 26.0 ft
53. Minimum Vertical Clearance Over Bridge: 328.1 ft
54A/54B. Min. Vert. Underclearance: N Feature not hwy or RR 0.0 ft

	NE			SW		
Meas.	-1	-1	-1	-1	-1	-1
Post.	DO NOT T	DO NOT T	DO NOT T	DO NOT T	DO NOT T	DO NOT T

55A/55B. Minimum Lateral Underclearance R: N Feature not hwy or RR 0.0 ft
56. Minimum Lateral Underclearance L: 0.0 ft

INSPECTION

Type	Insp Req.	Insp Done	Freq:	Insp. Date:	Next Insp.:
NBI:		Y	24	1/15/2014	1/15/2016
FC Freq.:	Y	Y	24	1/15/2014	1/15/2016
UW Freq.:	N	N	NA	NA	NA
OS Freq.:	N	N	NA	NA	NA

CLASSIFICATION

12. Base Hwy Network: On Base Network 20. Toll Facility: 3 On free road
21. Custodian: 01 State Highway Agency 22. Owner: 01 State Highway Agency
26. Functional Class: 06 Rural Minor Arterial 37. Historical Sig.: 4 Hist sign not determin
100. Defense Highway: 0 Not a STRAHNET h 101. Parallel Structure: No || bridge exists
102. Dir. of Traffic: 2 2-way traffic 103. Temp. Structure: Not Applicable (P)
104. Highway System: 0 Not on NHS 105. Fed. Land Hwy 0 N/A (NBI)
110. National Truck Network: 0 Not part of nat 112. NBIS Length: Long Enough

CONDITION

58. Deck: 5 Fair 59. Super.: 6 Satisfactory 60. Sub.: 5 Fair
62. Culvert: N N/A (NBI) 61. Channel/Channel Protection: 7 Minor Damage
Flowline Notes:
9/17/11 - FL = 63.3' to the top of the curb, span 4, N. side, 20' from the joint over Pier 3.

LOAD RATING AND POSTING

31. Design Load: 4 M 18 (H 20) 41. Posting status: A Open, no restriction
63. Op. Rating Method: 2 AS Allow. Stress-To Alt. Op. Rating Meth.: 2 AS Allow. Stress-T

64. Operating Rating (H / HS / 3-3):	27.2	42.5	61.6
66. Inventory Rating (H / HS / 3-3):	16.8	29.2	46.8

65. Inv. Rating Method: 1 LF Load Factor-Ton Alt. Inv. Rating Meth.: 1 LF Load Factor-Ton
70. Posting: 5 At/Above Legal Loads Date Rated: 1/21/2014

PROPOSED IMPROVEMENTS

94. Bridge Cost: $976,460 75. Type of Work: 31 Repl-Load Capacity
95. Roadway Cost: $1,611,159 76. Lgth. of Improvment: 413.5 ft
96. Total Cost: $2,734,088 114. Future ADT: 2240
97. Year of Cost Est.: 2007 115. Year of Future ADT: 2031

NAVIGATION DATA

38. Navigation Control: Permit Not Required
39. Vertical Clearance: 0.0 ft 40. Horizontal Clearance: 0.0 ft
111. Pier Protection: 1 Not Required 116. Lift Bridge Vert. Clear.: 0.0 ft

APPRAISAL

36A. Bridge Rail: 0 Substandard 36C. Approach Rail: 0 Substandard
36D. Transition: 0 Substandard 36D. Approach Rail Ends: 0 Substandard
67. Str. Evaluation: 5 Above Min Tolerable 68. Deck Geometry: 4 Tolerable
69. Underclearance, Vertical and Horizontal: N Not applicable (NBI)
71. Waterway Adequacy: 8 Equal Desirable
72. Approach Alignment: 8 Equal Desirable Crit
113. Scour Critical: 8 Stable Above Footing

200a. Temperature: 45
200d. Weather: CLEAR
201. Structural Steel ASTM Desig.: -1 -1
202. Waterproof Membrane: -1
Date Installed: 1/1/1901
203. Type Exp. Dev.: Sliding Plate
204. Type of Handrail: Concrete Post and Rails
205. Material and Quantity: 1730.0
208. Type of Abutment: Pedestal
Type of Foundation: Natural Foundation Matl.
209. Type of Pier / Found.: 2 Piers No
No Piling or Drilled Shaft
210. Foundation Elev. -3.0 -3.0
-1.0 -3.0 -1.0
211. Wear. Surf. Prot. System: None
Date Installed: 1/1/1901
213. Utilities Attached: -1
-1 -1 -1
-1 -1 -1

214a. Posted Weight Limit: NR
b. Posted Speed Limit: -1
c. Narrow/One Lane Bridge sign: -1
d. Vertical Clearance Sign: _
Advanced Warning Sign: _
Existing/Recommended Posting: -1 -1
Min./ Max Vert. Clearance: -1 -1
e. Navigation Lights: NO
Working/Not Working: _
215. Overpass: C - US Highway
221. Substructure Cond. (U/W): -
222. Fill over RCB: -1
223. Appr. Slab/Rdwy Cond.: Satisfactory
224. Critical Feature Type: 477
225. Paint Type: Red Lead Ready
Overcoat: 0
226. Date Painted: 2004
227. Paint Coloring: Gray
233. Deck Forming: Conventional Forming
236. Deck Cleaning: -1
238. School Bus Rte: Current and Desired Route
240. Appr. Roadway Type: Asphalt/Bituminous

243. Girder Spacing/Number: -1.0 / 5
244. Span Lengths:
-1 -1 -1
-1 -1 -1
-1 -1
245. Girder Depth: -3.000
246. Type of Overlay: _
246. Overlay Thickness: 0
246. Overlay Date: 1/1/1901
246. Overlay Depth Changed > 1"? _
247. Protective Systems: 1: _
2: _ 3: _
4: _ 5: _
248. No. of Field Splices w/ Corrosion: -1
249. Scour Crit. POA exists?: No
250. Culvert Headwall Dist.: -1.0
254. Thru Truss Type: _
256. Chan. Profile Up/Down Stream?: _
257a. OkiePROS Auto. Truck Routing Yes
258. Plans w/ found. are in file at ODOT
259. Scour Eval. is in file at ODOT
263. Interchange at Intersection N
264. Interstate Milepoint -1.00

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Inspection Date: 1/15/2014 Reported By: ASALAMI

Invoice No.: -1 Inspected With: Jason Carter

Agency :

Ali Salami

Structure / Inspection Notes

INSP. W/ SNOOPER & VIA ROPE ACCESS BY WES KELLOGG AND DAN KNICKMEYER.

Elm.	Env.	Description	Un.	Qty.	Qty.St. 1	% 1	Qty.St. 2	% 2	Qty.St. 3	% 3	Qty.St. 4	% 4	Qty.St. 5	% 5
12	4	Reinforced Concrete Deck	(SF)	9,072	8,165	90 %	907	10 %	0	0 %	0	0 %	0	0 %
107	4	Steel Open Girder Beam	(LF)	1,600	0	0 %	1,600	100 %	0	0 %	0	0 %	0	0 %
152	4	Steel Floor Beam	(LF)	194	0	0 %	194	100 %	0	0 %	0	0 %	0	0 %
205	4	Reinforced Conc Column or Pile Extension	(EA)	20	0	0 %	20	100 %	0	0 %	0	0 %	0	0 %
207	4	Steel Tower	(EA)	8	0	0 %	8	100 %	0	0 %	0	0 %	0	0 %
215	4	Reinforced Conc Abutment	(LF)	52	0	0 %	26	50 %	26	50 %	0	0 %	0	0 %
234	4	Reinforced Conc Cap	(LF)	52	46	88 %	6	12 %	0	0 %	0	0 %	0	0 %
304	4	Open Expansion Joint	(LF)	100	87	87 %	13	13 %	0	0 %	0	0 %	0	0 %
311	4	Moveable Bearing (roller, sliding, etc.)	(EA)	15	0	0 %	15	100 %	0	0 %	0	0 %	0	0 %
313	4	Fixed Bearing	(EA)	15	0	0 %	15	100 %	0	0 %	0	0 %	0	0 %
321	4	Reinforced Conc Approach Slab w/ or w/o AC O	(EA)	2	0	0 %	0	0 %	2	100 %	0	0 %	0	0 %
331	4	Reinforced Conc Bridge Railing	(LF)	756	378	50 %	373	49 %	5	1 %	0	0 %	0	0 %
356	4	Steel Cracking/Fatigue	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
357	4	Pack Rust	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
358	4	Concrete Cracking	(EA)	1	0	0 %	0	0 %	0	0 %	1	100 %	0	0 %
364	4	Steel Out-Of-Plane Compression Members	(EA)	1	1	100 %	0	0 %	0	0 %	0	0 %	0	0 %
515	4	Steel (Superstructure) Protective Coating	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
659	4	Soffit of Concrete Decks and Slabs	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
765	4	Steel Open Girder/Beam End (5 Ft.)	(LF)	110	0	0 %	110	100 %	0	0 %	0	0 %	0	0 %
777	4	Steel Stringer End (5 Ft.)	(LF)	149	0	0 %	149	100 %	0	0 %	0	0 %	0	0 %
909	4	Pourable Fixed Joint Seal	(LF)	192	115	60 %	77	40 %	0	0 %	0	0 %	0	0 %
918	4	Steel (Substructure) Protective Coating	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
968	4	Erosion	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %

Additional Elements

Elem.	Element Notes (Include Size and Location of Deterioration
12	FX - SEAL DECK CRACKS. Very heavy cracking in spans 6, 7 & 8; moderate cracking elsewhere (cracks in spans 3 & 4 are wide, but spaced far apart). 2' 6" patched on S. side over Pier 10. Edges of the deck along jts. have been patched. UPLIFT IN DECK APPR. 1/2" OVER BMS. 3 & 4.
107	FX: Heavy rust, but mostly surface. Some pack rust and sec. loss.
152	FX; MOST ALL HAVE CORROSION W/ MINOR SEC. LOSS IN AREAS BUT HAVE BEEN PAINTED OVER.
205	<none>
207	FX; COL. 2, HAS 1/2" ECCENTRICITY. RATING WAS DONE. Areas of isolated corrosion. Tower 8 has been retrofit with vertical stiffeners and mid-point bracing. Tower 7 has a slight misalignment near the top of the leg 2.
215	FX - INSTALL RIPRAP ALONG WINGWALLS AND ON ABUTMENT SLOPES. Hairline map cracking; E. Abutment has a 1'x1'x1" spall with exp. rebar under Girder 2; W. Abutment is exposed to the bottom of web wall, has full-width transverse crack/cold joint, and transverse cracks in N. Column, backwall of W. Abutment is cracked. Erosion is occurring around and in front of both abutments caused by runoff.
234	FX; SPALL W/ REINF. EXPOSED @ PIER # 8.
304	FX; JTS. HAS BEEN REPAIRED W/ ASPHT, BUT MORE REPAIRED ARE NEEDED BECAUSE OF LEAKING JOINT SEAL.
311	<none>
313	FX; BRGS. ARE RUSTY W/ PACK RUST THUR-OUT, ALSO ANCHOR BOLTS ARE MISSING & BROKEN @ VARIOUS LOCATIONS.
321	FX - SEAL GAP BETWEEN E. APPROACH SLAB AND SOUTH WINGWALL. There is a large gap between the E. approach slab and the wingwall/railing that is allowing infiltration and erosion to occur at E. abutment.
331	FX: Some small areas of damage with exposed rebar. See photo.
356	FX - REPAIR CRACKED ANGLE AT ORDER 1 & PIER BEAM 5, PROP, 1 1/2". There is a 10" crack in the connection angle of Girder 1 to the W. face of Pier Beam 5. There is also a crack-like indentation on the SW connection from pier beam 7 and girder 5, but this may just be an irregularity in the paint (MT inconclusive).
357	FX; Pack rust is starting to re-activate on the seats of the pier beams at the tops of the bents and also in the crevices of the bent components.
358	FX: Cracks need resealed.
364	FX: Minor distortion noted to leg 2 of tower 7 & P.BM. 6. (1/4" - 3/8")
515	FX: Heavy rust, but mostly surface. Some pack rust and sec. loss.

Elem.	Element Notes (Include Size and Location of Deterioration
659	PX: There are a few, small shallow delaminations on the soffit, totaling < 2%-3% of area.
765	PX - REPAIR CONNECTION OF GIRDER 1 TO PIER BEAM 5. There is a 10"-long crack in the connection angle of Girder 1 to the West face of Pier Beam 5, north side. Girders have been re-painted. 5" CRACK IN CONN. @ S.7, BM. 5, TOWER 7.
777	PX: SHEARED RIVET @ S.6, BM.2, TOWER 6. NOTE: POOR COPES W/OVER CUTS.
909	PX: Small area of spalling at joint I. See photo.
918	PX: Isolated areas of surface corrosion on columns.
968	PX - INSTALL RIPRAP ON ABUTMENT SLOPES AND ALONG WINGWALLS. Erosion taking place all around both of the abutments.

NBI 04076
STRUCTURE 0814 1711 X
US 281/CREEK
CADDO COUNTY
2014-01-15

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2014.01.15

NBI 04076
STRUCTURE 0814 1711 X
US 281/CREEK
CADDO COUNTY
2014-01-15

NBI 04076
STRUCTURE 0814 1711 X
US 281/CREEK
CADDO COUNTY
2014-01-15
COLORADO
Tower 8
Column 1
1/17/14
2014 01 17

NBI 04076
STRUCTURE 0814 1711 X
US 281/CREEK
CADDO COUNTY
2014-01-15
2014.01.17

NBI 04076
STRUCTURE 0814 1711 X
US 281/CREEK
CADDO COUNTY
2014-01-15
2014.01.17