

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

BRIDGE INSPECTION FIELD REPORT

Structure File Number: 1802046

Inventory Bridge Number: CUY 00017 02.830 N

Bridge Type: 1 - CONCRETE/5 - ARCH/3 - DECK

Sufficiency Rating: 61.3

Date Built: 7/1/1933

District: 12 Place Code (FIPS): FAIRVIEW PARK

SR17 over ROCKY RIVER

Type of Service on: HIGHWAY-PEDESTRIAN

APPROACH ITEMS

- c1. Approach Wearing Surface (EA)
- c2. Approach Slabs (SF)
- c3. Relief Joint (LF)
- c4. Embankment (EA) d
- c5. Guardrail (EA)
- N36. Safety Features:
Tr, Gr, Tm
- c6. Approach Summary

QTY.	condition state				cr
	1	2	3	4	TR
2					2
					2
					1
4					1
0.0					1
36)B <u> </u> N <u> </u> 36)C <u> </u> 1 <u> </u> 36)D <u> </u> 1					(9-0) 6

DECK ITEMS

- c7.1 Floor/Slab (SF)
- c7.2 Edge of Floor/Slab (LF)
- c8. Wearing Surface (SF)
- c9. Curb/Sidewalk/Walkway (LF)
- c10. Median (LF)
- c11. Railing (LF)
- N36. Safety Features: Rail
- c12. Drainage (EA) d
- c13. Expansion Joint (LF) d
- N58. Deck Summary

QTY.	condition state				cr
	1	2	3	4	TR
123775.5					3
3838					
99788					3
3838.0					2
3838					3
36)A <u> </u> 1					
0.0					3
0.0					3
N58. Deck Summary					(9-0) 5

SUPERSTRUCTURE ITEMS

- c14. Alignment (EA) d
- c15.1 Beams/Girders (LF)
- c15.2 Slab (SF)
- c16. Diaphragm/X-Frames (EA)
- c17. Stringers (LF)
- c18. Floorbeams (LF)
- c19. Truss Verticals (EA)
- c20. Truss Diagonals (EA)
- c21. Truss Upper Chord (EA)
- c22. Truss Lower Chord (EA)
- c23. Truss Gusset Plate (EA) d
- c24. Lateral Bracing (EA)
- c25. Sway Bracing (EA)
- c26. Bearing Devices (EA) d
- c27. Arch (LF)
- c28. Arch Column/Hanger (EA)
- c29. Arch Spandrel Walls (LF)
- c30. Prot. Coating System (LF) d
- c31. Pins/Hangers/Hinges (EA) d
- c32. Fatigue (LF) d
- N59. Superstructure Summary

QTY.	condition state				cr
	1	2	3	4	TR
15					1
0.0					3
0.0					
0.0					
0.0					
0.0					2
0.0					1
0.0					2
0.0					2
0.0					2
N59. Superstructure Summary					(9-0) 5

SUBSTRUCTURE ITEMS

- c33. Abutment Walls (LF)
- c34. Abutment Caps (LF)
- c35. Abut. Columns/Bents (EA)
- c36. Pier Walls (LF)
- c37. Pier Caps (LF)
- c38. Pier Columns/Bents (EA)
- c39. Backwalls (LF)
- c40. Wingwalls (EA)
- c42. Scour (EA) d
- c43. Slope Protection (EA) d
- N60. Substructure Summary

QTY.	condition state				cr
	1	2	3	4	TR
129.0					2
129.0					2
0.0					
580.5					
580.5					1
0.0					2
129.0					1
0.0					1
16					1
					3
N60. Substructure Summary					(9-0) 5

CULVERT ITEMS

- c44. General (LF)
- c45. Alignment (LF) d
- c46. Shape (LF) d
- c47. Seams (LF) d
- c48. Headwall/Endwall (LF)
- c49. Scour (LF) d
- c50. Abutments (LF)
- N62. Culvert Summary

QTY.	condition state				cr
	1	2	3	4	TR
N62. Culvert Summary					(9-0) N

CHANNEL ITEMS

- c51. Alignment (LF) d
- c52. Protection (LF) d
- c53. Hydraulic Opening (EA) d
- c54. Navigation Lights (EA) d
- N61. Channel Summary

QTY.	condition state				cr
	1	2	3	4	TR
200.0					2
200.0					1
1					1
N61. Channel Summary					(9-0) 6

SIGN/UTILITY ITEMS

- c55. Signs (EA) d
- c56. Sign Supports (EA) d
- c57. Utilities (LF) d

QTY.	condition state				cr
	1	2	3	4	TR
					4
General Appraisal					(9-0) 5
N41. Operating Status					A

General Appraisal

N41. Operating Status

Inspector Name Costa, Jose
Inspection Date/Type 09/16/2014 Routine
PE Number 61171
Reviewer Name Costa, Jose
Review Date 03/06/2015
PE Number 61171

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Key: "Qty" = Quantity for Element Level inspection; "(LF)" = Linear Feet; "(SF)" = Square Feet; "(EA)" = Each or count; "CR" = 1-4 Condition Rating or average of worst span unless Summary item 9-0, then the average of entire bridge influenced by the bold boxes; "TR" = Transition Rating or weighted average of condition states; "d" = dedicated or specific chart and guidance, all others use Material specific chart/guidance; "c" = condition prefix; "N" = NBIS rating

Inspection Procedures

Next Insp Cycle is in 2015 and Est. Hours is and TTC is MT-95.31 and other TT notes include. with 2014 lead insp. EF and truck req'd . . .

Comments

APPROACH

c1. Approach Wearing Surface

East approach slab has edge spall that has been patched with AC. East approach pavement has sealed & unsealed transverse cracks and unsealed longitudinal cracks, some patches. West approach pavement has had extensive crack sealing.

c4. Embankment

East shale embankments erode, but there are no problems in immediate vicinity of bridge.

c5. Guardrail

Minor surface corrosion and scrapes.

DECK

c7.1 Floor/Slab

Large areas of the deck soffit have delaminated or have spalls. Primary and transverse reinforcing bars are typically exposed in the spall areas. Many spall areas have been coated with a sealant, but corrosion is re-activating on the exposed bars. Longitudinal and transverse cracks with efflorescence are present in the majority of the spans. The repaired area in Span H next to the East Pylon has developed spalls. In East Approach Span 1 full-width x 9" spalls present between Beams 5 and 7.

c8. Wearing Surface

Longitudinal cracks in the wearing surface in all lanes, all spans, ranging from 1/8" to 1/4". Cracking near East Abutment is getting very wide. Map cracking noted throughout also, but most extensively in Span A. Span E has a 27"x16" area of crushed wearing surface concrete (wearing surface spalls do not extend to slab anywhere). Patched area in Span E westbound lane is crushing and coming off.

c9. Curb/Sidewalk/Walkway

The sidewalks have many patched areas. Curbs plates are corroded in every span. Sidewalk at northeast approach is cracking.

c11. Railing

Very heavy corrosion in the tubular railing, which retains water and is corroding from the inside out. Railing is approaching failure in multiple locations. Approximately 80% of the bottom rails have corrosion holes, in some cases 100% section loss. Over the west approach, the middle rail also has areas of 100% loss. Elsewhere, top and middle rails have heavy corrosion.

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c12. Drainage

Drains along south curb are completely clogged in multiple spans. Ponding is occurring along the north curb in Spans A, F and G. All scuppers filled with dirt and vegetation, but some of them are still functioning. Large corrosion holes exist in downspouts at Tower B, north column, Tower F, south column and Tower G, south column.

c13. Expansion Joint

Seals have de-bonded from joints over Piers 6, 8, 9, 10, 11, 12 and the West Pylon. Sections of joint armor are missing at the East Abutment joint. Joint material at the West Abutment and West Vaults joints is still bonded to the joint armor, but torn in multiple locations. Edge spalls adjacent to West Abutment joint armor.

SUPERSTRUCTURE

c14. Alignment

No misalignment noted anywhere on the structure.

c15.1 Beams/Girders

Beams in approach spans have widespread spalls and delamination. Bottom faces of beams in the East Approach spans have exposed reinforcing, and some have delamination on the vertical faces adjacent to the bottom face spalls. Beam 7 in East Approach Span 2 appears to have been saw-cut in order to expose reinforcing; bottom row of rebar has only an epoxy coating protecting it.

c18. Floorbeams

Random spalls with exposed reinforcing on the vertical faces of the floorbeams, sometimes connecting across the bottom face. Corrosion has resulted in minor section loss on some of the exposed reinforcing. Many spall areas have been sealed with white epoxy, but corrosion is beginning to re-activate in some of these bars. Floorbeams in approach spans also have some spalls and patches. Floorbeam A above the West Pylon has a 1-ft diameter spall.

c26. Bearing Devices

No significant deficiencies.

c27. Arch

The arches have large patches, spalls and delamination on all faces, randomly throughout, but totaling less than 10% of the surface area of the arches.

c28. Arch Column/Hanger

Cracking, delaminated patches and spalls with exposed reinforcing. Some of the spalls have been coated with a white epoxy. Column A, Span D, south arch has a 12'-high x full-width delamination on the south face. Column caps exhibit cracking and spalls at the intersection with the floorbeams. Piles of concrete chunks have accumulated on the higher side of the arches at all the arch columns.

c30. Protective Coating System

Epoxy-urethane coating flaking off throughout arches.

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SUBSTRUCTURE

c33. Abutment Walls

East abutment has minor cracking below stringer 4, and a 28" high corner spall on the south edge of the south pedestal. West abutment has a 2'x6'x8" spall at the south end, along with two 3'-long edge spalls in the same area.

c34. Abutment Caps

South edge of east abutment spalled. Debris on seats.

c38. Pier Columns/Bents

Full-height vertical crack on west face of north column, Pier 5. 3'-high vertical crack on north face of south column, Pier 6. A 4'x18" and a 2'x1' corner spalls on the NE corner of Pier 6. Piers 7 and 8 have spalls on the interior faces of the columns, with exposed rebar on Pier 8. A 2'-long edge spall on the bottom east edge of the Pier 8 south column cap.

c36. Pier Walls

None of the piers have walls. This item should not be have been rated.

c37. Pier Caps

No significant deficiencies.

c39. Backwalls

No significant deficiencies.

c40. Wingwalls

No significant deficiencies. Corrosion staining on northwest and southeast wingwalls is coming from the corroded railing above, not from rebar.

c42. Scour

Repair at base of Pier 12 looks good.

CHANNEL

c51. Alignment

Stream appears to be gradually shifting or widening eastward at the bridge, in large part because of the runoff from east approach roadway.

c52. Protection

The stone protection around the base of Pier 12 has been repaired.

c53. Hydraulic Opening

More than adequate - Extremely remote chance of overtopping.