

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION FIELD REPORT

Structure File Number: 1812831

Inventory Bridge Number: CUY 00480 06.470 N

Bridge Type: 3 - STEEL/6 - GIRDER (FLOOR SYSTEM)/3 - DECK

Sufficiency Rating: 88.0

Date Built: 7/1/1970

District: 12 Place Code (FIPS): FAIRVIEW PARK

I-480 over ROCKY RIVER

Type of Service on: HIGHWAY

### 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
					1
4					2
0.0					2
36)B <u>  1  </u> 36)C <u>  1  </u> 36)D <u>  1  </u>					(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
226224					2
3142					
223082					2
					3
3142					2
36)A <u>  1  </u>					(9-0) 6
0.0					2
0.0					3

### 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
9					1
0.0					2
0.0					1
0.0					2
0.0					1
0.0					1
0.0					1
0.0					2
0.0					2
N59. Superstructure Summary					(9-0) 6

### 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
288					2
288					2
0.0					
1152					
1152					1
0.0					2
288					2
0.0					1
10					1
0.0					3
N60. Substructure Summary					(9-0) 6

### 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					1
200.0					2
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
0.0					1
0.0					1
General Appraisal					(9-0) 6
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** Brokaw, Michael  
**Review Date** 03/23/2015  
**PE Number** 72336

**STATE OF OHIO DEPARTMENT OF TRANSPORTATION  
BRIDGE INSPECTION FIELD REPORT**

Structure File Number: 1812831

Inventory Bridge Number: CUY 00480 06.470 N

Bridge Type: 3 - STEEL/6 - GIRDER (FLOOR SYSTEM)/3 - DECK

Sufficiency Rating: 88.0

Date Built: 7/1/1970

District: 12 Place Code (FIPS): FAIRVIEW PARK

I-480 over ROCKY RIVER

Type of Service on: HIGHWAY

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 (2015 Approval - MB corrected FCM date)

**Comments**

**APPROACH**

**c1. Approach Wearing Surface**

Patches in West Approach along West Abutment joint, with small potholes. Extensive crack sealing on East Approach pavement. Some unsealed longitudinal cracks in pavement. Some map cracking in shoulders.

**c4. Embankment**

Some erosion at all 4 corners. Erosion trough formed on northeast embankment extends down East Abutment slope.

**c5. Guardrail**

Spalling along top edge of railing typical.

**DECK**

**c7.1 Floor/Slab**

Areas of corrosion in the stay-in-place forms next to the expansion joints. Full-depth hole in the deck near the north parapet on the east side of the expansion joint in Span 4. Also, a full-depth hole along the west face of Floorbeam 50 near Girder A in Span 6(covered by joint armor on top).

**c8. Wearing Surface**

Transverse cracks up to 1/16" wide at approx. 7 ft. apart. Large patch in Span 4 eastbound lanes is starting to deteriorate. Also, some smaller deteriorated patches in Span 6. Full-depth hole in the deck near the north parapet on the east side of the expansion joint in Span 4.

**c11. Railing**

Spalls with exposed corroded rebar typical along the tops of the railings full length, and along bottom interior edges near joints. Spalls with exposed corroded rebar on exterior faces where sign posts are connected. Many access panel covers in the railing are missing. Median parapet has shallow spalls with exposed corroded rebar throughout, and the top seal is detached and hanging along the side of the parapet in Spans 6 and 7.

**c12. Drainage**

Leakage and surface corrosion below neoprene couplers with loose steel bands. Minor debris in scuppers. Cracked sections of grates in eastbound lanes shoulder, Span 6, and westbound lanes shoulder, Span 4.

**c13. Expansion Joint**

**STATE OF OHIO DEPARTMENT OF TRANSPORTATION  
BRIDGE INSPECTION FIELD REPORT**

Structure File Number: 1812831

Inventory Bridge Number: CUY 00480 06.470 N

Bridge Type: 3 - STEEL/6 - GIRDER (FLOOR SYSTEM)/3 - DECK

Sufficiency Rating: 88.0

Date Built: 7/1/1970

District: 12 Place Code (FIPS): FAIRVIEW PARK

I-480 over ROCKY RIVER

Type of Service on: HIGHWAY

Joint armor at the abutments has separated at the seams, deformed across joint, and is banging loudly under live load. Full-depth loss of concrete under the joint armor on the east face of Floorbeam 50 next to Girder A in Span 6. Expansion joint over East Abutment bangs loudly when wheel loads go over the area around Girder B.

## SUPERSTRUCTURE

### c14. Alignment

No misalignment noted.

### c15.1 Beams/Girders

Laminating corrosion and debris typical at girder hinge components due to leakage through joints. Girder F top flange is tight up against the East Abutment backwall.

### c16. Diaphragm/Cross Frames

No significant deficiencies in cross frames.

### c17. Stringers

Surface corrosion with no section loss on exterior faces of fascia stringers.

### c18. Floorbeams

Peeling paint and surface corrosion on floorbeams adjacent to expansion joints.

### c26. Bearing Devices

Laminating corrosion and debris on the rocker bearing at girder hinges under the joints. Minor surface corrosion on masonry plates on Piers 1 and 8. Nested rocker bearings for Girders E & F at Pier 8 tilted excessively. Girder E bearing at East Abutment has heavy fretting corrosion, but appears to be bearing properly.

### c30. Protective Coating System

Paint in very good condition everywhere away from the expansion joints. Corrosion directly under joints.

### c31. Pins/Hangers/Hinges

Debris, surface and laminating corrosion at girder hinges under joints.

### c32. Fatigue

Cored hole ("dog-bone") retrofits in girders have isolated locations of overcuts and incomplete saw-cuts.

## SUBSTRUCTURE

### c33. Abutment Walls

East Abutment has a 9"x9"x18" corner spall next to Bearing A and a 35"x10"x4" spall next to Bearing F, but the masonry plates for these bearings are still fully on concrete.

### c34. Abutment Caps

East Abutment has a 9"x9"x18" corner spall next to Bearing A and a 35"x10"x4" spall

**STATE OF OHIO DEPARTMENT OF TRANSPORTATION  
BRIDGE INSPECTION FIELD REPORT**

Structure File Number: 1812831

Inventory Bridge Number: CUY 00480 06.470 N

Bridge Type: 3 - STEEL/6 - GIRDER (FLOOR SYSTEM)/3 - DECK

Sufficiency Rating: 88.0

Date Built: 7/1/1970

District: 12 Place Code (FIPS): FAIRVIEW PARK

I-480 over ROCKY RIVER

Type of Service on: HIGHWAY

next to Bearing F, but the masonry plates for these bearings are still fully on concrete.

**c38. Pier Columns/Bents**

All piers except Pier 1 have some cracking, typically at the corners. Pier 4 west face, Pier 7 west face and Pier 6 both faces have more delamination than the other piers, but total distressed area is less than 5%.

**c36. Pier Walls**

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

**c37. Pier Caps**

No significant deficiencies.

**c39. Backwalls**

Vertical hairline cracks, shallow patches, moisture staining from joint leakage. Tops of backwalls have spalls near joint armor, exterior girders.

**c40. Wingwalls**

Small patches, graffiti.

**c42. Scour**

The tops and up to 6" of the vertical faces of the footings of Pier 6 are exposed, but there is no undermining. Pier 6 footings are on bedrock.

**c43. Slope Protection**

Roadway drainage from the northeast embankment has eroded a trough up to 4' deep extending from East Abutment all the way to Pier 7. Trough is right against Pier 8 north column, but no footing is exposed.

**CHANNEL**

**c51. Alignment**

Channel is perpendicular to bridge.

**c52. Protection**

The localized scour that seemed to be caused the drainage troughs next to Pier 6 appears to have stabilized and is not progressing. Erosion troughs are occurring in the slopes, but this is due to runoff from roadway, not due to flow in the river.

**c53. Hydraulic Opening**

More than adequate - Extremely remote chance of overtopping.