

The National Bridge Inventory contains data submitted by state transportation departments to the Federal Highway Administration in coded format.
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Basic Information

Ohio [39] Cuyahoga County [035] Cleveland [16000] 0.33 MILES N. OF JCT I-90 41-28-42 = 41.478333 081-41-58 = - 81.699444

1803301 Highway agency district 12 Owner State Highway Agency [01] Maintenance responsibility State Highway Agency [01]

Route 42 US 42 Toll On free road [3] Features intersected TRAIN AV, FLATS IND RR

Design - main Steel [3] Design - approach Steel continuous [4] Kilometerpoint 2729 km = 1692.0 mi
 2 Truss - Deck [09] 8 Stringer/Multi-beam or girder [02] Year built 1912 Year reconstructed 1994
 Skew angle 0 Structure Flared
 Historical significance Bridge is not eligible for the NRHP. [5]

Total length 208.8 m = 685.1 ft Length of maximum span 42.1 m = 138.1 ft Deck width, out-to-out 19.3 m = 63.3 ft Bridge roadway width, curb-to-curb 14.6 m = 47.9 ft

Inventory Route, Total Horizontal Clearance 14.6 m = 47.9 ft Curb or sidewalk width - left 1.5 m = 4.9 ft Curb or sidewalk width - right 1.5 m = 4.9 ft

Deck structure type Concrete Cast-in-Place [1]

Type of wearing surface Integral Concrete (separate non-modified layer of concrete added to structural deck) [2]

Deck protection Epoxy Coated Reinforcing [1]

Type of membrane/wearing surface

Weight Limits

Bypass, detour length 0.5 km = 0.3 mi Method to determine inventory rating Allowable Stress(AS) [2] Inventory rating 32.4 metric ton = 35.6 tons

Method to determine operating rating Allowable Stress(AS) [2] Operating rating 40.5 metric ton = 44.6 tons

Bridge posting Equal to or above legal loads [5] Design Load MS 18+Mod / HS 20+Mod [6]

Functional Details

Average Daily Traffic Average daily truck traffi % Year Future average daily traffic Year

Road classification Lanes on structure Approach roadway width

Type of service on bridge Direction of traffic Bridge median

Parallel structure designation

Type of service under bridge Lanes under structure Navigation control

Navigation vertical clearanc Navigation horizontal clearance

Minimum navigation vertical clearance, vertical lift bridge Minimum vertical clearance over bridge roadway

Minimum lateral underclearance reference feature

Minimum lateral underclearance on right Minimum lateral underclearance on left

Minimum Vertical Underclearance Minimum vertical underclearance reference feature

Appraisal ratings - underclearances

Repair and Replacement Plans

Type of work to be performed

Work done by

Bridge improvement cost Roadway improvement cost

Length of structure improvement Total project cost

Year of improvement cost estimate

Border bridge - state Border bridge - percent responsibility of other state

Border bridge - structure number

Inspection and Sufficiency

Structure status	Open, no restriction [A]	Appraisal ratings - structural	Equal to present minimum criteria [6]
Condition ratings - superstructure	Satisfactory [6]	Appraisal ratings - roadway alignment	Equal to present desirable criteria [8]
Condition ratings - substructure	Satisfactory [6]	Appraisal ratings - deck geometry	Basically intolerable requiring high priority of replacement [2]
Condition ratings - deck	Good [7]		
Scour	Bridge not over waterway. [N]		
Channel and channel protection	Not applicable. [N]		
Appraisal ratings - water adequacy	N/A [N]	Status evaluation	Functionally obsolete [2]
Pier or abutment protection		Sufficiency rating	72
Culverts	Not applicable. Used if structure is not a culvert. [N]		
Traffic safety features - railings	Inspected feature meets currently acceptable standards. [1]		
Traffic safety features - transitions	Inspected feature meets currently acceptable standards. [1]		
Traffic safety features - approach guardrail	Inspected feature meets currently acceptable standards. [1]		
Traffic safety features - approach guardrail ends	Inspected feature meets currently acceptable standards. [1]		
Inspection date	December 2010 [1210]	Designated inspection frequency	12 Months
Underwater inspection	Not needed [N]	Underwater inspection date	
Fracture critical inspection	Every year [Y12]	Fracture critical inspection date	December 2010 [1210]
Other special inspection	Not needed [N]	Other special inspection date	

Unit of Measure: **English**
Structure File Number **1803301**
Sufficiency Rating: **72.3 fo**

Bridge Inventory Information
Inventory Bridge Number: **CUY 00042 1695**
ON TRAIN AV, FLATS IND RR

Report Date **09/19/2012** **BM-191** Page: 1 of 2
BR. Type STEEL / TRUSS / DECK
Date of Last Inventory Update: **03/05/2012**

District: **12** County **CUYAHOGA** (101) Location: **0.33 MILES N. OF JCT I-90** (102) Facility Carried: **US 42**
(2) FIPS Code: **CLEVELAND** (103) Route On Bridge: **STATE (ODOT)** (104) Route Under Bridge: **NON-HIGHWAY**
(9) Direction of Traffic: **2-WAY TRAFFIC** (10) Temporary: **N** (11) Truck Network: **N** (12) Parallel: **N**
(95) Insp: **OHIO TRAN DEPT** (96) Maint: **OHIO TRAN DEPT** (97) Routine: **CITY/LOC** (100) Type Serv: (On): **HIGHWAY/PEDESTRIAN** (Under): **RAILROAD**

Inventory Route Data
(3) Route On/Under: **ON** Hwy Sys: **U.S. NUMBERED HIGHWAY** (63) Main Spans Number: **2** Type: **STEEL / TRUSS / DECK**
Route No.: **00042** Dir: Des: **MAINLINE** Pref: Approach Spans Number: **8** Type: **STEEL / BEAM / CONTINUOUS**
Total Spans: **10** (65) Max Span: **138 Ft** (66) Overall Leng: **685 Ft**

(4) Feature Intersected: **TRAIN AV, FLATS IND RR** (70) Substructure (71) Foundation and Scour Information
(5) County: **CUY** Mileage: **1695** Special Desig: Abut-Rear Matl: **CONCRETE** Type: **GRAVITY** Fnd: **SPREAD FOOTING**
(6) Avg. Daily Traffic(ADT): **15,193** (7) ADT Year: **2010** Abut-Fwd Matl: **CONCRETE** Type: **GRAVITY** Fnd: **SPREAD FOOTING**
(8) Truck Traf: **530** (14) NHS: **NO - X** (15) Corridor: **N** Pier-Pred Matl: **CONCRETE** Type: **CAPPED COLUMN** Fnd: **CIP REINF CONCRETE PILES(OTHER DIAMETER)**
(16) Functional Class: **MINOR ARTERIAL-URBAN** (19) Strahnt: **Non-Interstate** Pier-Other Matl: **CONCRETE** Type: **CELLULAR OR "U"** Fnd: **SPREAD FOOTING**

Intersected Route Data
(22) Route On/Under: Hwy Sys: No of Piers Predominate: **06** Other: **03** Other: **NN**
Route No.: Dir: Des: Pref: (86) Stream Velocity: **NNN** (74) Scour: **BRIDGE NOT OVER WATERWAY**
(23) Feature Intersected: (189) Dive: **N Freq: 0** Probe: **N Freq: 0** (75) Chan Prot: **N/A**
(24) County: Mileage: Special Desig: (189) Date of last Dive Insp: (152) Drainage Area: **NNN Sq Mi**

(25) Avg. Daily Traffic(ADT): **0** (26) ADT Year: **0**
(27) Truck Traf: **0** (28) NHS: **-** (29) Corridor: **0**
(30) Functional Class: (36) Strahnt: **Not Applicable**

Clearance On the Bridge
(154) Min Hriz on Bridge: NC: **0.0 Ft** Card: **48.0 Ft**
(155) Prac Max Vert On Brg: **9999.9 Ft**
(67) Min Vrt Clr On Brg: NC: **0.0 Ft** Card: **9999.9 Ft**
(80) Min Latl Clr: NC: **0.0 / 0.0 Ft** Card: **0.0 / 0.0 Ft**
(81) Vrt Clr Lft: **0.0 Ft**

Clearance Under the Bridge
(156) Min. Horiz Under Clear: NC: **0.0 Ft** Card: **0.0 Ft**
(157) Prac Max Vrt Under Clear: **20.8 Ft**
(77) Min Vert Under Clear: NC: **0.0 Ft** Card: **20.8 Ft**
(78) Min Lat Under Clear: NC: **0.0 / 0.0 Ft** Card: **82.0 / 27.0 Ft**

Load Rating Information (88-89) Appraisal
(48) Design Load: **HS/20-44 & ALTERNATE MILITARY LOADING** (Including calculated Items)
(83) Operating: **45 Ton**
Inventory: **36 Ton**
Ohio Percent of Legal Load **150** (88) Waterway Adequacy **N**
Year of Rating: **1995** (89) Approach Alignment **8**
(84) Analysis: **WORKING STRESS (WS)** Calc Gen Appraisal: **6**
(85) Rate Soft: **BARS** Analyzed by: **ACLA** Calc Deck Geometry: **2**
Analysis on Bars: **WRKG STRESS ANALYSIS** Calc Underclearance: **4**

Approach Information
(109) Approach Guardrail: **OTHER**
(110) Approach Pavement: **CONCRETE** (111) Grade: **GOOD**

Culvert Information
(131) Culvert Type: **NONE/NOT APPLICBLE** (127) Length: **0.0 Ft**
(129) Depth of Fill: **0.0 Ft** (130) Headwalls: **NONE**

General Information
(121) Main Member **RIVETED BUILT-UP STEEL** (122) Moment Plate: **RIVETED OR BOLTED**
(169) Expansion Joint: **COMPRESSION SEAL**
(124) Bearing Devices: **ROLLERS/ELASTOMERIC (LAMIN.)**
(126) Navigation: **Control- X** Vert Clr: **0.0 Ft** Horiz Clear: **0.0 Ft**
(193) Spec Insp: **N** Freq: **0** Date: **2011-08-18**
(188) Fracture Critical Insp: **Y** Freq: **24** Date: **2011-08-18**
(138) Long Member: **THREE OR MORE TRUSSES (RIVETED)** (135) Hinges: **NOT APPLICABLE**
(141) Structural Steel Memb: **A7** (139) Framing: **STRAIGHT**
Railing: **OTHER**

(58) Railing: **REINFORCED CONCRETE PARAPET**
(59) Deck Drainage: **SCUPPERS & DWNSPTS**
(60) Deck Type: **REINF CONCRT (PRESTRSD, PRECAST)**
(61) Deck Protection: External: **NONE**
Internal: **EPOXY COATED REINFORCING (BOTH)**
(62) Wearing Surface: **INTEGRAL CONCRETE (MONOLITHIC)**
Thickness: **2.0 in** (119) Date of Wearing Surface: **01/01/1993**
Slope Protection: **NONE-NATURAL PROTECTION(GRASS,BUSHES)**
Pay Wt: **2,000,000 pounds** Prime Loc: **FIELD**
Bridge Dedicated Name:

Unit of Measure: **English**
 Structure File Number **1803301**
 Sufficiency Rating: **72.3 fo**

Bridge Inventory Information
 Inventory Bridge Number: **CUY 00042 1695**
ON TRAIN AV, FLATS IND RR

Report Date **09/19/2012** **BM-191** Page: 2 of 2
BR. Type STEEL/TRUSS/DECK
 Date of Last Inventory Update: **03/05/2012**

General Information (Continued)				Original Plans Information					
(---) Hist Significance: NOT HISTORIC		(69) NBIS: Y		(142) Fabricator:					
(---) Hist Builder: UNKNOWN		Hist Build Year: 1955		(143) Contractor:					
(69) Hist Type: PRATT (RIVETED)				(144) Ohio Original Construction Project No.:					
(161) Special Features (see below):				(---) Microfilm Reel:					
(105) Border Bridge State: Resp % (106) SFN:				(151) Standard Drawing:					
Proposed Improvements		Programming Info		Aperture Cards: Orig: N Repair: Y Fabr: N					
(90) Type Work: -		PID Number: 16462		Plan Information Available: 1PLAN INFORMATION AVAILABLE					
(90) Length: Ft		PID Status: PROGRAM		(153) Repair Projects					
(90) Bridge Cost (\$1000s): 0		PID Date: 06/10/1997		1. / 020		2. / 044		3. 920968 / MMM	
(90) Roadway Cost (\$1000s): 0				4. / 020		5. /		6. / 011	
(90) Total Project Cost (\$1000s): 0		(90) Year:		7.		8.		9.	
(91) Future ADT (On Bridge): 0		(92) Year of Future ADT: 2033		10.					
Inspection Summary		(I-69) Survey Items		Utilities		Special Features			
(I-8) Deck: 7	Railings: 1 MEETS CURRENT STANDARDS	(I-32) Superstructure: 6	Transitions: 1 MEETS CURRENT STANDARDS	(46) Electric: Y		(161) Lighting: Y			
(I-42) Substructure: 6	Guardrail: 1 MEETS CURRENT STANDARDS	(I-50) Culvert:	Rail Ends: 1 MEETS CURRENT STANDARDS	Gas: N		Fencing: Y			
(I-54) Channel:	In Depth: N NONE N/A	(I-60) Approaches: 6	Fracture Critical: N NONE N/A	Sanitary Sewer: N		Glare-Screen: N			
(I-66) General Appraisal: 6	Scour Critical: N NONE N/A	(I-66) Operational Status: A	Critical Findings: N NONE N/A	Telephone: Y		Splash-Guard: Y			
Inspection Date: 05/31/2012	Insp. Update Date: 08/23/2012	(94) Desig Insp Freq: 12 Months		TV Cable: N		Catwalks: N			
				Water: N		Other-Feat: N			
				Other: N		(184) Signs-on: N			
						Signs-Under: N			
						(162) Fence-Ht: 0.0 Ft			
						(163) Noise Barr: N			
SFNs Replacing this retired bridge: -									
SFNs That where replaced by this bridge: -									
This bridge was retired and copied to:									
The bridge was copied from:				INV Field Bridge Marker:		CUY-00042-1695 -			
				INT Field Bridge Marker:		---			

PONTIS CoRe elements and Condition States

Elem No.	CoRe Element Description	Total Quantity	Unit Meas.	Condition State Percents(*)				
				1	2	3	4	5
26	CONCRETE DECK - PROTECTED W/COATED BARS	1	EA	100	0	0	0	0
131	PAINTED STEEL DECK TRUSS	1370	LF	0	100	0	0	0
215	REINFORCED CONC ABUTMENT	126	LF	100	0	0	0	0
234	REINFORCED CONC CAP	379	LF	0	100	0	0	0
302	COMPRESSION JOINT SEAL	126	LF	0	100	0	0	0
321	REINFORCED CONCRETE APPROACH SLAB	2	EA	0	100	0	0	0
331	CONCRETE BRIDGE RAILING	1370	LF	0	100	0	0	0

(*) Percentages Should add to 100%

STATE OF OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE INSPECTION REPORT

BR-86 REV 02-95

1	8	0	3	3	0	1
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Bridge Number **CUY 00042 1695** CLEVELAND
CO ROUTE UNIT

Date Built **07/01/1912 - 1994**

District **12** Bridge Type **STEEL/TRUSS/DECK**

Type Service **1 52 TRAIN AV. FLATS IND RR**

CUY

DECK		Out/Out 63.3			THCK = 2.0	
1. Floor	1-REINF CONCRT (PRESTRSD	8	1	2. Wearing Surface	2-INTEGRAL CONCRETE (MON	41
	1-CONCRETE				W.S. Date = 01/01/1993	
3. Curbs, Sidewalks, Walkways	1-CONCRETE	9	1	4. Median		42
5. Railing	1-REINFORCED CONCRETE PA	10	2	6. Drainage	3-SCUPPERS & DWNSPTS	43
7. Expansion Joints	3-COMPRESSION SEAL	11	2	8. Summary		44
SUPERSTRUCTURE		MAX.SPAN=138				
9. Alignment			1	10. Beams/Girders/Slab	2-RIVETED BUILT-UP STEEL	45
11. Diaphragms or Crossframes	TOT.LGTH=685		1	12. Joists/Stringers		46
13. Floor Beams			1	14. Floor Beam Connections		47
15. Verticals			2	16. Diagonals		48
17. End Posts			1	18. Top Chord		49
19. Lower Chord			1	20. Lower Lateral Bracing		50
21. Top Lateral Bracing				22. Sway Bracing		51
23. Portals				24. Bearing Devices	1-ROLLERS C-ELASTOMERIC (LAMIN.)	52
25. Arch				26. Arch Columns or Hangers		53
27. Spandrel Walls				28. Protective Coating System	TYPE = 5-PAINT SYSTEM OZEU DATE = 01/01/1994	54
29. Pins/Hangers/Hinges				30. Fatigue Prone Connections		55
31. Live Load Response			S	32. Summary		56
SUBSTRUCTURE		2-CONCRETE		PIERS=9	SPANS = 2	
33. Abutments	2-CONCRETE	24	1	34. Abutment Seats		57
35. Piers	TYPE = 2-CONCRETE	25	2	36. Pier Seats		58
37. Backwalls			1	38. Wingwalls	ABUTMENT:=SPREAD / SPREAD	59
39. Fenders and Dolphins				40. Scour	N-BRIDGE NOT OVER WATERW	60
41. Slope Protection	N-NONE	28		42. Summary	DIVE DT=N/A	62
CULVERTS						
43. General				44. Alignment		63
45. Shape				46. Seams		64
47. Headwalls or Endwalls				48. Scour		65
49.				50. Summary		66
CHANNEL					X-N/A	
51. Alignment				52. Protection		67
53. Waterway Adequacy				54. Summary		68
APPROACHES						
55. Pavement	1-CONCRETE	35	2	56. Approach Slabs		69
57. Guardrail	0-OTHER	36	1	58. Relief Joints		70
59. Embankment	BRDG.WIDTH=48.0	37	2	60. Summary	PCT.LEGAL=150	71
GENERAL						
61. Navigation Lights				62. Warning Signs	ROUTINE.RESP: 4-CITY/LOCAL MAINT.RESP: 1-OHIO TRAN DEPT	72
63. Sign Supports	MVC ON=9999 UND=0000			64. Utilities	ELEC/TEL/	73
65. Vertical Clearance			1	66. General Appraisal & Operational Status		74

67. INSPECTED BY

68. REVIEWED BY

SIGNED

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76 PE

M	S
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78 INITIALS

SIGNED

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81 PE

A	H
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83 INITIALS

DOT 2852

DECK AREA 43,357

Date

0	5	3	1	1	2
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86

91

1	1	1	1	N	N	N	N
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92

69 Survey

99

Date

0	8	2	3	1	2
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100

105

STATE OF OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE INSPECTION REPORT

BR-86 REV 02-95

1	8	0	3	3	0	1
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1 Structure File Number 7

Bridge Number **CUY 00042 1695**
CO ROUTE UNIT

Date Built 07/01/1912 - 1994

District **12** Bridge Type **STEEL/TRUSS/DECK**

Type Service **1 5 2**

TRAIN AV, FLATS IND RR

Deck	FLOOR: A FEW LEACHED CRACKS. FLOOR IS <1% DETERIORATED.
Deck	WEARING SURFACE: 25 SF OF CONCRETE PATCHES BREAKING UP.
Deck	35 SF OF ASPHALT PATCHES. WS IS 1-5% DETERIORATED.
Deck	CSW: CRACKS. LIGHT SCALING OF RIGHT SIDEWALK.
Deck	RAILING: LEACHING CRACKS. SCALING. PED RAIL CRACKS AND
Deck	LARGE DELAMINATIONS.
Deck	DRAINAGE: AREAS OF BUILT-UP DIRT AT SIDEWALK AND PED RAIL
Deck	DRAINS. TWO SCUPPERS ARE PLUGGED ABOVE PIER 8.
Deck	EXJTS: SEALS TORN AND PUSHED UP INTO TRAFFIC. 8' LENGTH
Deck	OF SEAL HAS FALLEN OUT AT CENTER LINE ABOVE PIER #6.
Superstructure	BEAMS: SOME RUSTED SECTION LOSS OF TOP AND BOTTOM FLANGES
Superstructure	IN SPANS #7 AND #10 NEAR EXJTS.
Superstructure	VERTICALS & DIAGONALS: CRACKED TACK WELDS AT GUSSET PLATES.
Superstructure	UPPER CHORD: CRACKED TACK WELDS AT GUSSET PLATES. AREAS OF
Superstructure	RUST SECTION LOSS WITH THRU HOLES UNDER EXJTS.
Superstructure	GUSSET PLATES: 1" LONG SAW CUT IN U8 GUSSET PLATE OF RIGHT
Superstructure	TRUSS IN SPAN 9. MISSING RIVET TO GUSSET PLATE TO LOWER
Superstructure	CHORD CONNECTION OVER RR TRACKS OF WEST TRUSS
Superstructure	(4TH VERTICLE SOUTH OF PIER 9).
Superstructure	LOWER CHORD: PITTING AND MINOR RUST SECTION LOSS.
Superstructure	LATERAL BRACING: CRACK IN WEB OF DIAGONAL BRACING MEMBER
Superstructure	NEAR LEFT TRUSS AT PIER #8. MINOR RUSTED SECTION LOSS.
Superstructure	BEARINGS: ROLLER BEARINGS OF TRUSS IN SPAN #9 HAVE MOVED
Superstructure	SOUTH ON PIER #8 TO THEIR DESIGN TRAVEL LIMITS. SOME
Superstructure	ANCHOR BOLTS ARE BENT. SOME PACK RUST.
Superstructure	PCS: 2% PEELING. RUSTING BELOW SOME EXJTS. FIRE DAMAGE AT
Superstructure	BOTH ABUTMENTS. PCS IS 5-10% DETERIORATED.
Superstructure	FPD: WELDED COVER PLATES ABOVE PIER 1.
Substructure	PIERS: MANY CRACKS, DELAMINATIONS AND SPALLS. FIRE
Substructure	SPALLING ON FORWARD FACE OF CRASH WALL OF PIER #3.
Substructure	PIER SEATS: 6 SQ.IN. SEAT LOSS UNDER LEFT TRUSS BEARING
Substructure	ON PIER #8. DELAMINATIONS. CRACKS.
Substructure	WINGWALLS: CRACKS. SPALLS. DELAMINATIONS.
Approaches	PAVEMENT: CRACKS.
Approaches	APPROACH SLABS: CRACKS. 5 SF OF SPALLS AND 50 SF OF ASPHALT
Approaches	PATCHES TO FORWARD APPROACH.
Approaches	GUARDRAIL: THRU CRACKS IN PED PARAPETS AT REAR. COLLISION
Approaches	DAMAGE TO REAR-LEFT.
Approaches	EMBANKMENT: 14" DEEP EROSION ALONG FORWARD-LEFT WINGWALL.
Approaches	VOID AT FORWARD-RIGHT WINGWALL (3.5' UNDER BY 5' ALONG).
General	WARNING SIGNS: NO BRIDGE END MARKERS.
General	UTILITIES: DISCONNECTED CONDUIT SLEEVES.
General	LAST REACHALL INSPECTION IN 2009. CLIMBED ON 8/18/2011.