HistoricBridges.org - National Bridge Inventory Data Sheet

2013 Inventory

The National Bridge Inventory contains data submitted by state transportion departments to the Federal Highway Administration in coded format.
Form Interface Design: www.historicbridges.org. Data Conversion Assistance By www.bridgehunter.com. None of the involved parties make any guarantee of accuracy.

Basic Information

Ohio [39]	Montgomery County [113]	Dayton [21000]	AT ISLAND PARK	39-46-36 = 39.776667	084-11-54 = -84.198333

5760437	Highway agency district	7	Owner	City or Municipal Highway Agency [04]	Maintenance responsibility	City or Municipal Highway Agency [04]	
Route	#Num!		HELENA STREET	Toll	On free road [3]	Features intersected	GREAT MIAMI RIVER 9

Design - main	Concrete [1]	Design - approach		Kilometerpoint	0 km = 0.0 mi		
3	Arch - Deck [11]	0	Other [00]	Year built	1926	Year reconstructed	1949
				Skew angle	0	Structure Flared	
				Historical significance	Bridge is eligible for the NRHP. [2]		

Total length	93.9 m = 308.1 ft	Length of maximum span	29.6 m = 97.1 ft	Deck width, out-to-out	13.4 m = 44.0 ft	Bridge roadway width, curb-to-curb	9.8 m = 32.2 ft
Inventory Route, Total Horizontal Clearance	9.8 m = 32.2 ft	Curb or sidewalk width - left	1.3 m = 4.3 ft	Curb or sidewalk width - right	1.3 m = 4.3 ft		

Deck structure type	Not applicable [N]
Type of wearing surface	Bituminous [6]
Deck protection	Not applicable (applies only to structures with no deck) [N]
Type of membrane/wearing surface	Not applicable (applies only to structures with no deck) [N]

Weight Limits

Bypass, detour length	Method to determine inventory rating	No rating analysis performed [5]	Inventory rating	32.4 metric ton = 35.6 tons	
0.3 km = 0.2 mi	Method to determine operating rating	No rating analysis performed [5]	Operating rating	32.4 metric ton = 35.6 tons	
	Bridge posting	Equal to or above legal loads [5]	Design Load		

Functional Details

Average Daily Traffic	16093	Average daily truck traffi	0 %	Year	1988	Future average daily traffic	22337
Year	2033						
Road classification	Collector (Urban) [17]	Lanes on structure	3	Approach roadway width	7.9 m = 25.9 ft		
Type of service on bridge	Highway-pedestrian [5]	Direction of traffic	2 - way traffic [2]	Bridge median			
Parallel structure designation	No parallel structure exists. [N]						
Type of service under bridge	Waterway [5]	Lanes under structure	0	Navigation control			
Navigation vertical clearanc	0 = N/A	Navigation horizontal clearance	0 = N/A				
Minimum navigation vertical clearance, vertical lift bridge		Minimum vertical clearance over bridge roadway	99.99 m = 328.1 ft				
Minimum lateral underclearance reference feature	Feature not a highway or railroad [N]						
Minimum lateral underclearance on right	0 = N/A	Minimum lateral underclearance on left	0 = N/A				
Minimum Vertical Underclearance	0 = N/A	Minimum vertical underclearance reference feature	Feature not a highway or railroad [N]				
Appraisal ratings - underclearances	N/A [N]						

Repair and Replacement Plans

Type of work to be performed

Replacement of bridge or other structure because of substandard load carrying capacity or substantial bridge roadway geometry. [31]

Work done by	Work to be done by contract [1]		
Bridge improvement cost	$1,500,000	Roadway improvement cost	$125,000
Length of structure improvement	99.1 m = 325.1 ft	Total project cost	$1,625,000
Year of improvement cost estimate	2005		
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	Meets minimum tolerable limits to be left in place as is [4]
Condition ratings - superstructure	Poor [4]	Appraisal ratings - roadway alignment	Equal to present minimum criteria [6]
Condition ratings - substructure	Fair [5]	Appraisal ratings - deck geometry	Basically intolerable requiring high priority of replacement [2]
Condition ratings - deck	Satisfactory [6]		

Scour	Bridge foundations determined to be stable for assessed or calculated scour condition. [5]
Channel and channel protection	Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition. [8]

Appraisal ratings - water adequacy	Better than present minimum criteria [7]	Status evaluation	Structurally deficient [1]
Pier or abutment protection		Sufficiency rating	49.1

Culverts	Not applicable. Used if structure is not a culvert. [N]

Traffic safety features - railings	
Traffic safety features - transitions	Not applicable or a safety feature is not required. [N]
Traffic safety features - approach guardrail	Not applicable or a safety feature is not required. [N]
Traffic safety features - approach guardrail ends	Not applicable or a safety feature is not required. [N]

Inspection date	June 2012 [0612]	Designated inspection frequency	12	Months

Underwater inspection	Not needed [N]	Underwater inspection date	
Fracture critical inspection	Not needed [N]	Fracture critical inspection date	
Other special inspection	Not needed [N]	Other special inspection date	

District: 07 | County: MONTGOMERY | (101) Location: AT ISLAND PARK | (102) Facility Carried: HELENA STREET
(2) FIPS Code: MOT-M-21000-DAYTON | (103) Route On Bridge: MUNICIPAL | (104) Route Under Bridge: NON HIGHWAY TRAFFIC ON BRIDGE
(9) Direction of Traffic: 2-WAY TRAFFIC | (10) Temporary: N | (11) Truck Network: N | (12) Parallel: N
(100) Type Serv: (On): HIGHWAY-PEDESTRIAN | (Under): WATERWAY

Inventory Route Data

(3) Route On/Under: ROUTE CARRIED "ON" THE STR | Hwy Sys: MUNICIPAL STREET (I.E. VILL
Route No: HELNA | Dir: NOT APPLICABLE | Des: MAINLINE | Pref: N
(4) Feature Intersected: GREAT MIAMI RIVER 9
(5) County: DAY | Mileage: 00090 | Special Desig: N
(6)Avg. Daily Traffic(ADT): 16,093 | (7) ADT Year: 1988
(8) Truck Traf: 0 | (14) NHS: NON-NHS BRG E | (15) Corridor: N
(16) Functional Class: URBAN - COLLECTOR | (19) Strahnt: NON-STRAHNET BRIDGES

Intersected Route Data

(22) Route On/Under: | Hwy Sys:
Route No: | Dir: | Des: | Pref:
(23) Feature Intersected:
(24) County: | Mileage: 0000 | Special Desig:
(25)Avg. Daily Traffic(ADT): | (26) ADT Year:
(27) Truck Traf: | (28) NHS: - | (29) Corridor: N
(30) Functional Class: | (36) Strahnt:

Clearance On the Bridge

(154) Min. Hriz on Bridge: NC: 0.0 | Card: 32.0 Ft
(155) Prac Max Vert On Brg: 9999.9 Ft
(67) Min Vrt Clr On Brg: NC: 0.0 | Card: 9999.9 Ft
(80) Min Latl Clr: NC: 9999.9/9999.9 Ft | Card: 9999.9/9999.9 Ft
(81) Vrt Clr Lft: 0.0 Ft

Structure Information

(38) Bypass Length: 02 Miles
(39) Latitude: 39 Deg 46 Min 36.54 Sec | Longitude: 84 Deg 11 Min 54.37 Sec
(40) Toll: ON FREE ROAD, THE STRUCTU
(41) Date Built: 7/1/1926 | (42) Major Rehabilitation: 1/1/1949
(43) No. Lanes On: 3 | No. Lanes Under: 0
(44) Horiz Curve: 00D00M | (45) Skew: 0 Deg
(49) App. Rdw Width: 26 Ft | (50) Brg. Rdw Width: 32.0 Ft
(51) Deck Width: 44.0 Ft | Deck Area: 13552 Sq. Ft
(52) Median Type: NONE/NON BARRIER/NO JOINT
(53) Bridge Median: NO MEDIAN
(54) Sidewalks: | (left) 4.6 Ft | (right) 4.6 Ft
(55) Type Curb or Sidewalks:
(Left) Matl: CONCRETE | Type: SIDEWALK (GREATER THAN 2' IN WIDTH)
(Right) Matl: CONCRETE | Type: SIDEWALK (GREATER THAN 2' IN WIDTH)
(56) Flared: N | (57) Composite: N - NON_COMPOSITE
(58) Railing: REINFORCED CONCRETE PARAPET
(59) Deck Drainage: INLETS WITH DRAIN PIPES
(60) Deck Type: REINFORCED CONCRETE
(61) Deck Protection: External: NONE OR NOT APPLICABLE
Internal: NONE OR NOT APPLICABLE
(62) Wearing Surface: BITUMINOUS (ASPHALTIC CONCRETE) - OVERLA
Thickness: 3.1 in | (119) Date of Wearing Surface: 1/1/1981
Slope Protection: NONE

(63) Main Spans Number: 3 | Type: CONCRETE/ARCH/FILLED
Approach Spans Number: 0 | Type: NONE/NONE/NONE
Total Spans: 3 | (65) Max Span: 97 Ft | (66) Overall Leng: 308 Ft

(70) Substructure		(71) Foundation and Scour Information	
Abut-Rear	Matl: CONCRETE	Type: GRAVITY	Fnd: TIMBER PILES
Abut-Fwd	Matl: CONCRETE	Type: GRAVITY	Fnd: TIMBER PILES
Pier-Pred	Matl: CONCRETE	Type: SOLID WALL	Fnd: TIMBER PILES
Pier-Other	Matl: NONE	Type: NONE	Fnd: NONE (SUCH AS MOST CULVERTS)
Pier-Other	Matl: NONE	Type: NONE	Fnd: NONE (SUCH AS MOST CULVERTS)
No of Piers Predominate:		Other:	Other:

(86) Stream Velocity: 007.2 | (74) Scour: SCOUR WITHIN LIMITS OF FOOTING OR PILES.
(189) Dive: N Freq: 0 | Probe: Y Freq: 0 | (75) Chan Prot: CONCRETE (CAST-IN-PLACE)
(189) Date of last Dive Insp: | (152) Drainage Area: UUU Sq Mi

Clearance Under the Bridge

(156) Min. Horiz Under Clear: NC: 0.0 Ft | Card: 0.0 Ft
(157) Prac Max Vrt Under Clear: 0.0 Ft
(77) Min Vert Under Clear: NC: 0.0 Ft | Card: 0.0 Ft
(78) Min Lat Under Clear: NC: 0.0/0.0 Ft | Card: 0.0/0.0 Ft

Load Rating Information

(48) Design Load: UNKNOWN
Opr Rat Fact: 9.999 LD:
Inv Rat Fact: 9.999 LD:
(83) Ohio Percent of Legal Load: 100
Year of Rating: 2014
(84) Analysis: FIELD EVALUATION AND DOCUMENTED ENGINEER
(85) Rate Soft: NO CALCULATIONS WERE DONE FOR LOADING RA
Analysis on Bars: NOT ON BARS [DEFAULT]
PE#: 57465 Omar Abu-Hajar

(88-89) Appraisal

(Including calculated Items)
(88) Waterway Adequacy: 7
(89) Approach Alignment: 6
Calc Gen Appraisal: 4
Calc Deck Geometry: 2
Calc Underclearance: N

Approach Information

(109) Approach Guardrail: NONE
(110) Approach Pavement: BITUMINOUS | (111) Grade: GOOD

Culvert Information

(131) Culvert Type: NOT A CULVERT OR RIGID FRAME | (127) Length: 0.0 Ft
(129) Depth of Fill: 0.0 Ft | (130) Headwalls: NONE OR NOT APPLICABLE (NOT A CU

General Information

(121) Main Member: NOT APPLICABLE (CULVERTS, TRUSSES, ARCHE | (122) Moment Plate: NO MOMENT PLATES
(169) Expansion Joint: NONE
(124) Bearing Devices: NONE
(126) Navigation: Control-N | Vert Clr: 0.0 Ft | Horiz Clear: 0.0 Ft
(193) Spec Insp: N | Freq: 0 | Date:
(188) Fracture Critical Insp: N | Freq: 0 | Date:
(138) Long Member: THREE CONCRETE ARCHES | (135) Hinges: NOT APPLICABLE (STRUCTURES WITH NO
(141) Structural Steel Memb: NONE | (139) Framing: NONE OR NOT APPLICABLE
Railing: N
Pay Wt: 0 pounds | Prime Loc: NONE (I.E. | Paint: NONE OR NOT APPLICABLE
Bridge Dedicated Name:

General Information (Continued)

(---) Hist Significance: ELIGIBLE FOR NATIONAL REGISTER
(69) NBIS: Y
(---) Hist Builder: OHIO STATE HIGHWAY DEPARTMENT
Hist Build Year: 1926
(69) Hist Type: CLOSED SPANDREL FILLED
(161) Special Features (see below):
(105) Border Bridge State: Resp: %(106) SFN:

Proposed Improvements

(90) Type Work: 31 - REPLACEMENT - LOAD/GEOMETRY
(90) Length: 325.0 Ft
(90) Bridge Cost ($1000s): 1500
(90) Roadway Cost ($1000s): 125
(90) Total Project Cost ($1000s): 1625
(90) Year: 1974
(91) Future ADT (On Bridge): 22337
(92) Year of Future ADT: 2033

Programming Info

PID Number:
PID Status:
PID Date:

Original Plans Information

(142) Fabricator:
(143) Contractor:
(144) Ohio Original Construction Project No:
(---) Microfilm Reel:
(151) Standard Drawing:
Aperture Cards: Orig: N Repair: N Fabr: N
Plan Information Available: 0 NO PLANS OR INFORMATION AVAILABLE FOR LO

(153) Repair Projects:
1) / MMM
2) / 044

Inspection Summary

(I-8) Deck:	5
(I-32) Superstructure:	4
(I-42) Substructure:	5
(I-50) Culvert:	N
(I-54) Channel:	8
(I-60) Approaches:	4
(I-66) General Appraisal:	4
(I-66) Operational Status:	A
Inspection Date:	9/18/2014
(94) Desig Insp Freq	12 Months

(I-69) Survey Items

Railings:	DOES NOT MEET ACCEPTABLE STANDA
Transitions:	NA/SAFETY FEATURE NOT REQUIRED
Guardrail:	NA/SAFETY FEATURE NOT REQUIRED
Rail Ends:	NA/SAFETY FEATURE NOT REQUIRED
In Depth:	
Fracture Critical:	
Scour Critical	
Critical Findings:	
Insp. Update Date:	9/18/2014

Utilities

(46)	Electric:	Y
	Gas:	N
	Sanitary Sewer:	N
	Telephone:	N
	TV Cable:	N
	Water:	N
	Other:	N

Special Features

(161)	Lighting:	Y
	Fencing:	N
	Glare-Screen:	N
	Splash-Guard:	N
	Catwalks:	N
	Other-Feat:	N
(184)	Signs-On:	N
	Signs-Under	N
(162)	Fence-Ht	0.0
(163)	Noise Barr	N

SFNs Replacing this retired bridge: -
SFNs That were replaced by this bridge: -
This bridge was retired and copied to:
The bridge was copied from:

INV Field Bridge Marker: MOT - HELNA - 0009 - N
INT Field Bridge Marker: - - 0000 -

(95) Insp: CITY OR OTHER LOCAL AGENCY	2nd: NONE	3rd: NONE
(96) Maint: CITY OR OTHER LOCAL AGENCY	2nd: NONE	3rd: NONE
(97) Routine: CITY OR OTHER LOCAL AGENCY	2nd: NONE	3rd: NONE

PONTIS CoRe elements and Conditions States

Elem No.	CoRe Element Description	Total Quantity	Unit Meas.	Condition State Percents(*)				
				1	2	3	4	5

(*) Percentages should add to 100%

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

BRIDGE INSPECTION REPORT

STRUCTURE FILE NUMBER: 5760437 | MOT (CO) | HELNA (Route) | 00090 (SLM) | MOT-M-21000-DAYTON (FIPS) | **DATE BUILT** 07/01/1926 - 1949

District 07 | CONCRETE/ARCHFILLED | **Type of Service** 1 | 55 GREAT MIAMI RIVER 9 | N (SD) | MOT

DECK

1. Floor	Out/Out 44.0 1-REINFORCED CONCRETE		2. Wearing Surface	THCK= 3.1 6-BITUMINOUS (ASPHALTIC CONCRETE) -	2
3. Curbs, Sidewalks & Walkways	1-CONCRETE 1-CONCRETE	2	4. Median	W.S. Date = 01/01/1981 N-NO MEDIAN	
5. Railing	1-REINFORCED CONCRETE PARAPET	2	6. Drainage	4-INLETS WITH DRAIN PIPES	1
7. Expansion Joints	N-NONE		**8. SUMMARY**	Deck Area: 13,552	5

SUPERSTRUCTURE

9. Alignment of Members	MAX.SPAN.LENGTH = 97	2	10. Beams/Girders/Slab	N-NOT APPLICABLE (CULVERTS, TRUSSES, ARCHE	
11. Diaphragms or Cross Frames	TOT.LGTH = 308		12. Joist/Stringers		
13. Floorbeams			14. Floorbeam Connections		
15. Verticals			16. Diagonals		
17. End posts			18. Upper Chord		
19. Lower Chord			20. Gusset Plates		
21. Lateral Bracing			22. Sway Bracing		
23. Portals			24. Bearing Devices	N-NONE N-NONE	
25. Arch		3	26. Arch Columns or Hangers		
27. Spandrel Walls		2	**28. Protective Coating System (PCS)**	TYPE: NNONE OR NOT APPLICABLE DATE =	
29. Pins/Hangers/Hinges	ADT: 16,093 TRUCK: 0 YEAR: 1988		30. Fatigue Prone Detail (E & E')		
31. Live Load Response (E or S)		S	**32. SUMMARY**		4

SUBSTRUCTURE

33. Abutments	2-CONCRETE 2-CONCRETE	2	34. Abutment Seats	PIERS= # OF SPANS=3	
35. Piers	TYPE = 2-CONCRETE	2	36. Pier Seats		
37. Backwalls			38. Wingwalls	ABUTMENT:=TIMBER PILES/TIMBER PILES	2
39. Fenders and Dolphins			40. Scour (Insp Type - 1, 2, 3)	5-SCOUR WITHIN LIMITS OF FOOTING OR PILES. 1	1
41. Slope Protection	N-NONE		**42. SUMMARY**	DIVE DT= N/A	5

CULVERTS

43. General			44. Alignment		
45. Shape			46. Seams		
47. Headwalls or Endwalls			48. Scour (Insp Type - 1, 2, 3)		
49. Abutments			**50. SUMMARY**		N

CHANNEL

51. Alignment		1	52. Protection	1-CONCRETE (CAST-IN-PLACE)	1
53. Hydraulic Opening		1	**54. SUMMARY**		8

APPROACHES

55. Pavement	2-BITUMINOUS	2	56. Approach Slabs		1
57. Guardrail	N-NONE		58. Relief Joint		
59. Embankment	BRDG.WIDTH=32.0	3	**60. SUMMARY**	PCT.LEGAL= 100	4

GENERAL

61. Navigation Lights			62. Warning Signs	ROUTINE.RESP: 4-CITY OR OTHER LOCAL AGENCY MAINT.RESP: 4-CITY OR OTHER LOCAL AGENCY	
63. Sign Supports	MVC ON=9999 UND=0000		64. Utilities	ELEC/	2
65. Vertical Clearance (1, 2-change, N)			66. **General Appraisal** & Operational Status	4	A

67. INSPECTED BY

Print First & Last Name | 68,177 PE Number | AG Initial

Inspected Date: 9/18/2014

68. REVIEWED BY

Print First & Last Name | 68,177 PE Number | AG Initial

Reviewed Date: 1/27/2015

0	N	N	N				

69. Survey (1, 0, N)