HistoricBridges.org - National Bridge Inventory Data Sheet

2011 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

Michigan [26]	Lapeer County [087]	Mayfield [52500]	1.0 MI N OF M-21	43-04-06 = 43.068333	083-19-07 = -83.318611

5312	Highway agency district	4	Owner	State Highway Agency [01]	Maintenance responsibility	State Highway Agency [01]	
Route	24		M-24	Toll	On free road [3]	Features intersected	CR RR (ABN)

Design - main	Steel [3]	Design - approach		Kilometerpoint	2083.3 km = 1291.6 mi		
3	Stringer/Multi-beam or girder [02]	0	Other [00]	Year built	1948	Year reconstructed	
				Skew angle	32	Structure Flared	
				Historical significance	Bridge is not eligible for the NRHP. [5]		

Total length	40.5 m = 132.9 ft	Length of maximum span	13.4 m = 44.0 ft	Deck width, out-to-out	13.2 m = 43.3 ft	Bridge roadway width, curb-to-curb	11.6 m = 38.1 ft
Inventory Route, Total Horizontal Clearance	12.5 m = 41.0 ft	Curb or sidewalk width - left	0.1 m = 0.3 ft	Curb or sidewalk width - right	0.1 m = 0.3 ft		

Deck structure type	Concrete Cast-in-Place [1]
Type of wearing surface	Bituminous [6]
Deck protection	
Type of membrane/wearing surface	

Weight Limits

Bypass, detour length	Method to determine inventory rating	Load Factor(LF) [1]	Inventory rating	46.8 metric ton = 51.5 tons	
0.2 km = 0.1 mi	Method to determine operating rating	Load Factor(LF) [1]	Operating rating	77.9 metric ton = 85.7 tons	
	Bridge posting	Equal to or above legal loads [5]	Design Load	MS 18 / HS 20 [5]	

Functional Details

Average Daily Traffic	18452	Average daily truck traffi	4 %	Year	2007	Future average daily traffic	26936
Year	2018						
Road classification	Minor Arterial (Rural) [06]	Lanes on structure	2	Approach roadway width	11.9 m = 39.0 ft		
Type of service on bridge	Highway [1]	Direction of traffic	2 - way traffic [2]	Bridge median			
Parallel structure designation	No parallel structure exists. [N]						
Type of service under bridge		Lanes under structure	0	Navigation control	Not applicable, no waterway. [N]		
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	5.2 m = 17.1 ft	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

Bridge deck replacement with only incidental widening. [37]

Work done by	Work to be done by contract [1]		
Bridge improvement cost	146000	Roadway improvement cost	66000
Length of structure improvement	40.5 m = 132.9 ft	Total project cost	773000
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	Meets minimum tolerable limits to be left in place as is [4]
Condition ratings - superstructur	Fair [5]	Appraisal ratings - roadway alignment	Equal to present minimum criteria [6]
Condition ratings - substructure	Poor [4]	Appraisal ratings - deck geometry	Somewhat better than minimum adequacy to tolerate being left in place as is [5]
Condition ratings - deck	Poor [4]		

Scour	Bridge not over waterway. [N]
Channel and channel protection	Not applicable. [N]

Appraisal ratings - water adequacy	N/A [N]	Status evaluation	Structurally deficient [1]
Pier or abutment protection		Sufficiency rating	66.3

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

Traffic safety features - railings	Inpected feature meets currently acceptable standards. [1]
Traffic safety features - transitions	Inpected feature meets currently acceptable standards. [1]
Traffic safety features - approach guardrail	Inpected feature meets currently acceptable standards. [1]
Traffic safety features - approach guardrail ends	Inpected feature meets currently acceptable standards. [1]

Inspection date	July 2011 [0711]	Designated inspection frequency	6	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	