

The National Bridge Inventory contains data submitted by state transportation 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] Calhoun County [025] Marengo [51520] 4 MI E OF MARSHALL 42-17-42 = 42.295000 084-53-14 = 84.887222

13315H00020B010 Highway agency district 5 Owner County Highway Agency [02] Maintenance responsibility County Highway Agency [02]

Route 0 21 MILE ROAD Toll On free road [3] Features intersected RICE CREEK

Design - main Steel [3] Design - approach Other [00] Kilometerpoint 131.6 km = 81.6 mi

1 Truss - Thru [10] 0 Other [00] Year built 1885 Year reconstructed N/A [0000]

Skew angle 0 Structure Flared

Historical significance Bridge is on the NRHP. [1]

Total length 18.2 m = 59.7 ft Length of maximum span 18.2 m = 59.7 ft Deck width, out-to-out 4.1 m = 13.5 ft Bridge roadway width, curb-to-curb 4 m = 13.1 ft

Inventory Route, Total Horizontal Clearance 4.1 m = 13.5 ft Curb or sidewalk width - left 0 m = 0.0 ft Curb or sidewalk width - right 0 m = 0.0 ft

Deck structure type Wood or Timber [8]

Type of wearing surface Wood or Timber [7]

Deck protection Other [9]

Type of membrane/wearing surface

Weight Limits

Bypass, detour length 0.8 km = 0.5 mi Method to determine inventory rating Load Factor(LF) [1] Inventory rating 17.4 metric ton = 19.1 tons

Method to determine operating rating Load Factor(LF) [1] Operating rating 23.1 metric ton = 25.4 tons

Bridge posting Design Load M 9 / H 10 [1]

Functional Details

Average Daily Traffic	77	Average daily truck traffi	0	%	Year	1994	Future average daily traffic	144	Year	2024
Road classification	Local (Rural) [09]		Lanes on structure	2		Approach roadway width	6.7 m = 22.0 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	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	99.9 = Unlimited					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	Work done by		Work to be done by contract [1]	
Replacement of bridge or other structure because of substandard load carrying capacity or substantial bridge roadway geometry. [31]	Bridge improvement cost	235000	Roadway improvement cost	95000
	Length of structure improvement	25.6 m = 84.0 ft	Total project cost	330000
	Year of improvement cost estimate			
	Border bridge - state		Border bridge - percent responsibility of other state	
	Border bridge - structure number			

Inspection and Sufficiency

Structure status

Posted for load [P]

Appraisal ratings -
structural

Basically intolerable requiring high priority of corrective action [3]

Condition ratings - superstructure

Serious [3]

Appraisal ratings -
roadway alignment

Equal to present minimum criteria [6]

Condition ratings - substructure

Satisfactory [6]

Appraisal ratings -
deck geometry

Basically intolerable requiring high priority of replacement [2]

Condition ratings - deck

Poor [4]

Scour

Bridge with "unknown" foundation that has not been evaluated for scour. [U]

Channel and channel protection

Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift. [7]

Appraisal ratings - water adequacy

Equal to present desirable criteria [8]

Status evaluation

Structurally deficient [1]

Pier or abutment protection

Sufficiency rating

21.1

Culverts

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

Traffic safety features - railings

Traffic safety features - transitions

Traffic safety features - approach guardrail

Traffic safety features - approach guardrail ends

Inspection date

September 2009 [0909]

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