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

Massachusetts [25]	Essex County [009]	Lawrence [34550]	AT MERRIMAC RIVER	42-42-14 = 42.703889	071-09-13 = -71.153611

L04003317DOTNBI	Highway agency district	4	Owner	State Highway Agency [01]	Maintenance responsibility	State Highway Agency [01]

Route	0	HWY UNION ST	Toll	On free road [3]	Features intersected	WATER MERRIMACK RIVER

Design - main	Aluminum, Wrought Iron or Cast Iron [9]	Design - approach		Kilometerpoint	0.2 km = 0.1 mi
5	Truss - Thru [10]	0	Other [00]	Year built	1888	Year reconstructed	1980
				Skew angle	0	Structure Flared	
				Historical significance	Bridge is eligible for the NRHP. [2]		

Total length	185.9 m = 609.9 ft	Length of maximum span	39.9 m = 130.9 ft	Deck width, out-to-out	14.9 m = 48.9 ft	Bridge roadway width, curb-to-curb	8 m = 26.2 ft
Inventory Route, Total Horizontal Clearance	7.9 m = 25.9 ft	Curb or sidewalk width - left	2.4 m = 7.9 ft	Curb or sidewalk width - right	2.4 m = 7.9 ft		

Deck structure type	Open Grating [3]
Type of wearing surface	
Deck protection	
Type of membrane/wearing surface	

Weight Limits

Bypass, detour length					
0.3 km = 0.2 mi	Method to determine inventory rating	Allowable Stress(AS) [2]	Inventory rating	0 metric ton = 0.0 tons	
	Method to determine operating rating	Allowable Stress(AS) [2]	Operating rating	0 metric ton = 0.0 tons	
	Bridge posting		Design Load	M 13.5 / H 15 [2]	

Functional Details

Average Daily Traffic	29000	Average daily truck traffi	5 %	Year	2008	Future average daily traffic	45800
Year	2031						
Road classification	Minor Arterial (Urban) [16]	Lanes on structure	2	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	0 m = 0.0 ft	Minimum vertical clearance over bridge roadway	4.19 m = 13.7 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	12926000	Roadway improvement cost	1293000
Length of structure improvement	193 m = 633.2 ft	Total project cost	19390000
Year of improvement cost estimate	2011		
Border bridge - state		Border bridge - percent responsibility of other state	
Border bridge - structure number			

Inspection and Sufficiency

Structure status	Bridge closed to all traffic [K]	Appraisal ratings - structural	
Condition ratings - superstructur	Serious [3]	Appraisal ratings - roadway alignment	Equal to present desirable criteria [8]
Condition ratings - substructure	Fair [5]	Appraisal ratings - deck geometry	
Condition ratings - deck	Poor [4]		

Scour	Bridge foundations determined to be stable for assessed or calculated scour condition. [5]
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	Superior to present desirable criteria [9]	Status evaluation	Structurally deficient [1]
Pier or abutment protection	Navigation protection not required [1]	Sufficiency rating	2

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	April 2010 [0410]	Designated inspection frequency	6	Months

Underwater inspection	Unknown [Y36]	Underwater inspection date	September 2009 [0909]
Fracture critical inspection	Every two years [Y24]	Fracture critical inspection date	April 2010 [0410]
Other special inspection	Unknown [Y06]	Other special inspection date	October 2010 [1010]