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]	Groveland [27620]	AT MERRIMAC RIVER	42-45-50 = 42.763889	071-02-04 = -71.034444

G1500130EDOTNBI	Highway agency district	4	Owner	State Highway Agency [01]	Maintenance responsibility	State Highway Agency [01]	
Route	97		ST 97 /ST113/LNCLN	Toll	On free road [3]	Features intersected	WATER MERRIMACK RIVER

Design - main	Steel [3]	Design - approach	Steel [3]	Kilometerpoint	2591 km = 1606.4 mi
1	Movable - Bascule [16]	5	Truss - Thru [10]	Year built	1914
				Year reconstructed	1951
				Skew angle	0
				Structure Flared	
				Historical significance	Bridge is not eligible for the NRHP. [5]

Total length	240.8 m = 790.1 ft	Length of maximum span	35.7 m = 117.1 ft	Deck width, out-to-out	12.5 m = 41.0 ft	Bridge roadway width, curb-to-curb	8.2 m = 26.9 ft
Inventory Route, Total Horizontal Clearance	8.2 m = 26.9 ft	Curb or sidewalk width - left	0 m = 0.0 ft	Curb or sidewalk width - right	2.3 m = 7.5 ft		

Deck structure type	Concrete Cast-in-Place [1]
Type of wearing surface	Bituminous [6]
Deck protection	
Type of membrane/wearing surface	Unknown [8]

Weight Limits

Bypass, detour length	Method to determine inventory rating	Load Factor(LF) [1]	Inventory rating	48.2 metric ton = 53.0 tons	
1.1 km = 0.7 mi	Method to determine operating rating	Load Factor(LF) [1]	Operating rating	80.5 metric ton = 88.6 tons	
	Bridge posting	Equal to or above legal loads [5]	Design Load	M 18 / H 20 [4]	

Functional Details

Average Daily Traffic	21400	Average daily truck traffi	3 %	Year	2008	Future average daily traffic	33797
Year	2031						
Road classification	Other Principal Arterial (Urban) [14]	Lanes on structure	2	Approach roadway width	8.2 m = 26.9 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 control on waterway (bridge permit required). [1]		
Navigation vertical clearanc	3.7 m = 12.1 ft	Navigation horizontal clearance	19.8 m = 65.0 ft				
Minimum navigation vertical clearance, vertical lift bridge	0 m = 0.0 ft	Minimum vertical clearance over bridge roadway	4.6 m = 15.1 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

Bridge rehabilitation because of general structure deterioration or inadequate strength. [35]

Work done by	Work to be done by contract [1]		
Bridge improvement cost	7453000	Roadway improvement cost	746000
Length of structure improvement	241 m = 790.7 ft	Total project cost	11180000
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	Posted for load [P]	Appraisal ratings - structural	Meets minimum tolerable limits to be left in place as is [4]
Condition ratings - superstructur	Poor [4]	Appraisal ratings - roadway alignment	Meets minimum tolerable limits to be left in place as is [4]
Condition ratings - substructure	Fair [5]	Appraisal ratings - deck geometry	Basically intolerable requiring high priority of corrrective action [3]
Condition ratings - deck	Poor [4]		

Scour	Scour calculation/evaluation has not been made. [6]
Channel and channel protection	Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly. [6]

Appraisal ratings - water adequacy	Equal to present desirable criteria [8]	Status evaluation	Structurally deficient [1]
Pier or abutment protection	In place and functioning [2]	Sufficiency rating	34

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	July 2010 [0710]	Designated inspection frequency	12	Months

Underwater inspection	Unknown [Y36]	Underwater inspection date	August 2009 [0809]
Fracture critical inspection	Every two years [Y24]	Fracture critical inspection date	July 2010 [0710]
Other special inspection	Every year [Y12]	Other special inspection date	July 2010 [0710]