

HistoricBridges.org - National Bridge Inventory Data Sheet

2019 Inventory

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

Massachusetts [25]	Middlesex County [017]	Cambridge [11000]	.16 KM N OF LONGFELLOW BR	42-21-45.01 = 42.362503	071-04-43.86 = -71.078850
C010084DMDOTNBI	Highway agency district: 6	Owner State Highway Agency [01]	Maintenance responsibility	State Highway Agency [01]	
Route 3		HWY FIRST ST	Toll On free road [3]	Features intersected WATER BROAD CANAL	
Design - main	Steel [3]	Design - approach	Steel [3]	Kilometerpoint	106.2 km = 65.8 mi
1	Girder and floorbeam system [03]	2	Stringer/Multi-beam or girder [02]	Year built	1924
				Year reconstructed	2000
				Skew angle	0
				Structure Flared	
				Historical significance	Bridge is possibly eligible for the NRHP. [3]
Total length	36.6 m = 120.1 ft	Length of maximum span	12.2 m = 40.0 ft	Deck width, out-to-out	16.9 m = 55.4 ft
Bridge roadway width, curb-to-curb	10.1 m = 33.1 ft	Inventory Route, Total Horizontal Clearance	10.1 m = 33.1 ft	Curb or sidewalk width - left	2.1 m = 6.9 ft
Curb or sidewalk width - right	2.1 m = 6.9 ft	Deck structure type	Open Grating [3]		
Type of wearing surface	Other [9]				
Deck protection					
Type of membrane/wearing surface					

Weight Limits

Bypass, detour length	Method to determine inventory rating	Load Factor(LF) [1]	Inventory rating	12.9 metric ton = 14.2 tons
0.2 km = 0.1 mi	Method to determine operating rating	Load Factor(LF) [1]	Operating rating	14.6 metric ton = 16.1 tons
Bridge posting		Design Load	M 18 / H 20 [4]	

Functional Details

Average Daily Traffic	17600	Average daily truck traffi	4	%	Year	2018	Future average daily traffic	30007	Year	2031
Road classification	Other Principal Arterial (Urban) [14]		Lanes on structure	2		Approach roadway width	10.1 m = 33.1 ft			
Type of service on bridge	Highway-pedestrian [5]		Direction of traffic	1 - way traffic [1]		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	1.2 m = 3.9 ft		Navigation horizontal clearance	12.2 m = 40.0 ft						
Minimum navigation vertical clearance, vertical lift bridge	0 m = 0.0 ft					Minimum vertical clearance over bridge roadway	4.88 m = 16.0 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	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	4053000	Roadway improvement cost	406000
	Length of structure improvement	46 m = 150.9 ft	Total project cost	6080000
	Year of improvement cost estimate	2019		
	Border bridge - state		Border bridge - percent responsibility of other state	
	Border bridge - structure number			

Inspection and Sufficiency

Structure status	<input type="text" value="Posted for load [P]"/>	Appraisal ratings - structural	<input type="text" value="Basically intolerable requiring high priority of replacement [2]"/>
Condition ratings - superstructure	<input type="text" value="Fair [5]"/>	Appraisal ratings - roadway alignment	<input type="text" value="Somewhat better than minimum adequacy to tolerate being left in place as is [5]"/>
Condition ratings - substructure	<input type="text" value="Poor [4]"/>	Appraisal ratings - deck geometry	<input type="text" value="Somewhat better than minimum adequacy to tolerate being left in place as is [5]"/>
Condition ratings - deck	<input type="text" value="Fair [5]"/>		
Scour	<input type="text" value="Bridge foundations determined to be stable for the assessed or calculated scour condition. [8]"/>		
Channel and channel protection	<input type="text" value="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	<input type="text" value="Somewhat better than minimum adequacy to tolerate being left in place as is [5]"/>	Status evaluation	<input type="text" value="Structurally deficient [1]"/>
Pier or abutment protection	<input type="text" value="In place but in a deteriorated condition [3]"/>	Sufficiency rating	<input type="text" value="33.1"/>
Culverts	<input type="text" value="Not applicable. Used if structure is not a culvert. [N]"/>		
Traffic safety features - railings	<input type="text"/>		
Traffic safety features - transitions	<input type="text"/>		
Traffic safety features - approach guardrail	<input type="text"/>		
Traffic safety features - approach guardrail ends	<input type="text"/>		
Inspection date	<input type="text" value="June 2018 [0618]"/>	Designated inspection frequency	<input type="text" value="12"/> Months
Underwater inspection	<input type="text" value="Every year [Y12]"/>	Underwater inspection date	<input type="text" value="July 2018 [0718]"/>
Fracture critical inspection	<input type="text" value="Every two years [Y24]"/>	Fracture critical inspection date	<input type="text" value="June 2018 [0618]"/>
Other special inspection	<input type="text" value="Every year [Y12]"/>	Other special inspection date	<input type="text" value="June 2018 [0618]"/>