HistoricBridges.org - National Bridge Inventory Data Sheet

2013 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

Washington [53]	Spokane County [063]	Spokane [67000]	1.13 E OF SR395	47-40-18.34 = 47.671761	117-23-18.17 = -117.388381

85123000000000	Highway agency district: 6	Owner: City or Municipal Highway Agency [04]	Maintenance responsibility: City or Municipal Highway Agency [04]		

Route: 803		MISSION AVENUE	Toll: On free road [3]	Features intersected: SPOKANE RIVER	

Design - main: 5	Concrete [1] Arch - Deck [11]	Design - approach: 0	Other [00]	Kilometerpoint: 0.1 km = 0.1 mi	
Year built: 1909	Year reconstructed: N/A [0000]	Skew angle: 0	Structure Flared:	Historical significance: Bridge is not eligible for the NRHP. [5]	

Total length: 106.1 m = 348.1 ft	Length of maximum span: 25.6 m = 84.0 ft	Deck width, out-to-out: 17.7 m = 58.1 ft	Bridge roadway width, curb-to-curb: 12.2 m = 40.0 ft				
Inventory Route, Total Horizontal Clearance: 12.2 m = 40.0 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: Not applicable [N]							
Type of wearing surface: Bituminous [6]							
Deck protection:							
Type of membrane/wearing surface:							

Weight Limits

Bypass, detour length: 0.6 km = 0.4 mi	Method to determine inventory rating: No rating analysis or evaluation perfor	Inventory rating: 32.4 metric ton = 35.6 tons			
	Method to determine operating rating: No rating analysis or evaluation perfor	Operating rating: 43.2 metric ton = 47.5 tons			
	Bridge posting: Equal to or above legal loads [5]	Design Load: MS 18+Mod / HS 20+Mod [6]			

Functional Details

Average Daily Traffic	20500	Average daily truck traffi	2 %	Year	2010	Future average daily traffic	26400
Year	2032						
Road classification	Other Principal Arterial (Urban) [14]	Lanes on structure	4	Approach roadway width	12.2 m = 40.0 ft		
Type of service on bridge	Highway-pedestrian [5]	Direction of traffic	2 - way traffic [2]	Bridge median	Closed median (no barriers) [2]		
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	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	409000	Roadway improvement cost	41000
Length of structure improvement	324.6 m = 1065.0 ft	Total project cost	614000
Year of improvement cost estimate	2013		
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	Somewhat better than minimum adequacy to tolerate being left in place as is [5]
Condition ratings - superstructure	Fair [5]	Appraisal ratings - roadway alignment	Equal to present minimum criteria [6]
Condition ratings - substructure	Fair [5]	Appraisal ratings - deck geometry	Basically intolerable requiring high priority of replacement [2]
Condition ratings - deck	Good [7]		

Scour	Bridge foundations determined to be stable for assessed or calculated scour condition. [5]
Channel and channel protection	Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition. [8]

Appraisal ratings - water adequacy	Equal to present desirable criteria [8]	Status evaluation	Functionally obsolete [2]
Pier or abutment protection		Sufficiency rating	59.1

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	
Traffic safety features - approach guardrail	
Traffic safety features - approach guardrail ends	

Inspection date	September 2011 [0911]	Designated inspection frequency	24	Months

Underwater inspection	Unknown [Y60]	Underwater inspection date	August 2009 [0809]
Fracture critical inspection	Not needed [N]	Fracture critical inspection date	
Other special inspection	Not needed [N]	Other special inspection date	

BRIDGE INSPECTION REPORT

Ver Date: 11/26/2013 Agency: SPOKANE

Status: Released Printed On: 09/30/20 Program Mgr: Roman G. Peralta

Bridge No. 420000803 Page: 1/3 **Structure Type**

Bridge Name MISSION AVE OC SPOKANE R **Route** 00803 **Location** 1.13 E OF SR395

Structure ID 08512300 **MilePost** 0.00 **Intersecting** SPOKANE RIVER

Inspector's Signature JEM IDent# G0608 Co-Inspector's Signature

5		Structural Adqcy	(657)	N		Pier/Abut/Protect	(679)	1909	Year Built	(332)	
2		Deck Geometry	(658)	5		Scour	(680)	0	Year Rebuilt	(336)	
9		Underclearance	(659)	6		Retaining Walls	(682)	48	Oper Rating	(551)	
5		Operating Level	(660)	9		Pier Protection	(683)	36	Inv Rating	(554)	
6		Alignment Adqcy	(661)	1		Bridge Rails	(684)	A	Open Close	(293)	
8		WaterwayAdqcy	(662)	0		Transition	(685)	9999	Vert Over Deck	(360)	
7		Deck Overall	(663)	0		Guardrails	(686)	0000	Vert Under	(374)	
9		Drains Condition	(664)	0		Terminals	(687)	N	Vert Und Code	(378)	
5		Superstructure	(671)	N		Revise Rating	(688)	0.00	Asphalt Depth		
2		Number Utilities	(675)			Photos Flag	(691)		Speed Limit		
5		Substructure	(676)			Soundings Flag	(693)				
8		Chan/Protection	(677)			Measure Clearance	(694)				
9		Culvert	(678)								

Inspections Performed

IT	NT	HRS	Date	Rep Type
Y	24	5.0	09/17/2013	Routine
				Fract Crit
D	60	1.0	08/13/2013	Underwater
				Special
				Interim
				Equipment
				Damage
				Safety
				Short Span

Total: 0.0

Suff Rating: 58.93 FO 58.93 FO

BMS Elements

Element	Element Description	Total	Units	State 1	State 2	State 3	State 4
12	Concrete Deck	13920	SF	-10	13920	10	0
116	Concrete Stringer	1392	LF	696	696	0	0
145	Earth Filled Concrete Arch	314	LF	0	300	14	0
212	Concrete Submerged Pier Wall	160	LF	0	120	40	0
215	Concrete Abutment	66	LF	50	16	0	0
220	Concrete Submerged Pile Cap/Footing	6	EA	6	0	0	0
266	Concrete Sidewalk & Supports	903	SF	403	450	50	0
331	Concrete Bridge Railing	696	LF	678	10	8	0
340	Metal Pedestrian Railing	696	LF	646	30	20	0
361	Scour	6	EA	6	0	0	0
800	Asphaltic Concrete (AC) Overlay	13920	SF	13820	100	0	0

Notes

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Bridge No. 420000803 **Structure Type**

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Structure ID 08512300 **MilePost** 0.00 **Intersecting** SPOKANE RIVER

0	The bridge is oriented from the west to the east. The temperature at the time of the inspection was 68 degrees. The water main on the bridge was replaced in the summer of 2011 along with the asphalt surfacing on the bridge.
9	The WSDOT Bridge Preservation dive team performed an underwater inspection of the Mission Avenue over Spokane River Bridge on August 13,2013. Piers 2 through 5 were in the waterway and were included in inspection. All in water piers are concrete pier walls founded on pile supported concrete footings and seals. In general ,the submerged substructure components were found in fair condition. Cocrete abrasion of up to 1/8" is typical at both piers between the high and low waterlines . Submerged concrete pier walls have typicallenses of poor consoildation near cold joints, as well as cracks and minor spalls that show the structures age but are not structurally significant. The vertical exposure is covered by horizontal timber form work that was left in place from original construction. Pier 4 has the greatest vertical exposure with up to 10 ft. on the southwest corner in localized scour hole. In this same location the previous underwater inspection found undermining with penetration. The undermining at the time was approximately 2 ft above the plan bottom of the footing:it has since filled in. Channel bottom elevation observed at this inspection were very similar to the previous underwater inspection. The waterway is well contained laterally and the banks in the vicinity of the bridge appear stable . Consideration should be given to placing riprap around Pier 4. Recommend retaining 60-month underwater inspection frequency. The full inspection report will be attach in flies tab
12	The concrete deck soffit exspose both sides have small areas of cracking, with some efflorescence. The top of bridge deck has a asphalt wearing overlay.
116	There are horizontal cracks in stringer lines B and C, with heavy efflorescence and rust staining near the abutments, especially on the east end.
145	The arch soffits have rock pockets, some of which have been repaired with gunite. There are drain pipes located at the juncture of the arches above the piers. All of the pipes are open and functioning. There is a line of wood blocks embedded in the concrete on the face of Arch 1.
212	The pier walls have steel angles embedded in the upstream ends for protection. The piers are in good shape overall. There is a large crack in the nosing of Pier 5, but it is still intact.
215	
220	
266	The sidewalk soffit has leaching cracks and diffuse efflorescence. The sidewalk brackets have leaching cracks and some spalling at the expansion joints, especially over Arches 4 and 5. Some of the joints have moss growing in them and water seeping out and staining the pier below.
331	
340	The large concrete railing posts are spalling where the metal railing is attached, and at the bottom corners.
361	The soundings were taken on 8/14/2013 in addion to those taken by the dive team. See the attached dive report.
800	The asphalt overlay was replaced in the summer of 2011 and with this the bridge has showed a noticeable decrease in the amount of water coming out of the expansion joints and pier drain pipes.

Repairs

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Repair No	Pr	R	Repair Description	Noted	Maint	Verified

Inspections Performed and Resources Required

Report Type	Date	IT	Frq	Hrs	Insp	CertNo	Coinsp	Note
Routine	09/17/13		24	5.0	JEM	G0608	LAM	The soundings are done with the routine inspection but not always on the same day..

Resources	Use	Hour	Min	Req	Max	Notes
UBIT	50					2009 charged for high cost next charge in 2015

Report Type	Date	IT	Frq	Hrs	Insp	CertNo	Coinsp	Note
Underwater	08/13/13	D	60	1.0	JRH	G0911	MBS	Underwater Inspection by WSDOT Dive Team.

Resources	Use	Hour	Min	Req	Max	Notes

Report Type	Date	IT	Frq	Hrs	Insp	CertNo	Coinsp	Note
Informational	11/21/13				JEM	G0608		

Resources	Use	Hour	Min	Req	Max	Notes