



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Inspection Report for
B-32-015

STH 162 over DUTCH CREEK
Aug 02, 2017



Type	Prior	Frequency (mos)	Performed
Routine	08-11-15	24	X
Interim	07-22-13	0	
SIA Review	08-11-15	48	

Latitude 43°52'45.95"N
Longitude 90°59'55.72"W

Owner STATE HIGHWAY DEPT
Maintainer STATE HIGHWAY DEPT

Time Log

Team members

Hours	Minutes	
2	0	

Inspector	Name	Number	Signature	Date
	Lynch, Dennis	8893	<i>Dennis Lynch</i> E-signed by Michael A Olson(ole110174)	09-19-17

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Identification & Location

Feature On: STH 162	Section Town Range: S08 T16N R05W	Structure Number:
Feature Under: DUTCH CREEK	County: LA CROSSE	B-32-015
Location 1.3M N JCT CTH II	Municipality: BANGOR	Structure Name:

Geometry

measurements in feet, except where noted

Approach Roadway Width: 28	Bridge Roadway Width: 26.0	Total Length: 111.8
Approach Pavement Width: 20	Deck Width: 28.0	Deck Area (sq ft): 3130

Traffic

Lanes	ADT	ADT year	Traffic Pattern
On 2	990	2011	TWO WAY TRAFFIC

Capacity

Load Rating

Inventory rating: HS20	Overburden depth (in): 0.0	Last rating date:	Controlling: INTERIOR DECK GIRDER Moment
Operating rating: HS33	Deck surface material: CONCRETE	Re-rate for capacity (Y/N):	Control location: 5.0 SPAN 2, 19.9
Posting:	Re-rate notes:		

Hydraulic

Classification

Scour Critical Code(113): (5) STABLE-WITHIN FOOTING LIMITS	Q100 (ft3/sec): 0	
High water elevation (ft): 742.5	Velocity (ft/sec): 0.0	Sufficiency #: 69.0

Span(s)

Span #	Material	Configuration	Depth (in)	Length (ft)	Main
1	CONT STEEL	DECK GIRDER		32.0	
2	CONT STEEL	DECK GIRDER		40.0	Y
3	CONT STEEL	DECK GIRDER		32.0	

Expansion joint(s)

Temperature:	File:74	New:
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Clearance

Item	File Measurement (ft)	File Date	New Measurement (ft)
Highway Min Vertical On Cardinal			
Horizontal On Cardinal			

Construction History

Year	Work Performed	FOS id
1989	PAINTING	
1985	NEW DECK	0032-44-11
1952	NEW STRUCTURE	

Maintenance Items

Item	Priority	Recommended by	Status	Status change
Channel - Monitor Scour	HIGH	Lynch, Dennis (8893)	IDENTIFIED	08/08/17
NW corner of bank and north abutment lost significant amount of material after last flood event replace as necessary				
Deck - Other Work	HIGH	Lynch, Dennis (8893)	IDENTIFIED	08/08/17
Repair soffit at drip edge on both sides of structure				
Deck - Surface Repair Spalls	MEDIUM	Lynch, Dennis (8893)	IDENTIFIED	08/08/17
Repair deck surface spalls and repair /replace paving block surface spalls and delaminations				

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Elements

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State			
						1	2	3	4
X	12		Reinforced Concrete Deck-Coated Reinforcing	SF	3,132	2,900	223	9	0
			Deck fascia/soffit is spalling/staining/cracking. Deck raised +/-1/4" above paving block at both abutments.						
		1080	Delamination - Spall - Patched Area	SF		0	79	9	0
			Spalls, delamination, cracking, staining of fascia edge. Areas of spalling on west fascia with exposed rebar.						
		1130	Cracking (RC)	SF		0	144	0	0
			Drip edge cracking with efflorescence and rust staining. HL transverse cracking with efflorescence.						
		8000	Wearing Surface (Bare)	SF	3,132	3,084	48	0	0
			Chained in 2011: 1.5% delamination (50 sf). Small spalls adjacent to joints. Other small random spalls in remainder of deck. Deck raised +/-3/8" above paving block at both abutments. Sounded with hammer specific locations near spalls same conclusion (17)						
		3210	Debonding/Spall/Patched Area/Pothole	SF		0	48	0	0
			(15) Chained - spalled and delaminated areas adjacent to expansion joints, C/L joint, and over pier 1 (~46 SF).						
		3220	Crack (Wearing Surface)	SF		0	0	0	0
			(15) Cracking and C/L construction joint sealed with epoxy.						
X	107		Steel Open Girder	LF	544	272	222	50	0
			Exterior girders and ends at abutments showing active corrosion/bubbling paint.						
		1000	Corrosion	LF		0	222	50	0
			Corrosion of bottom flanges of ext girders and at ends of all G's below bearings. Active and laminated corrosion on girder ends below leaking joint. Blush rusting on lower flanges over piers.						
		8516	Painted Steel	SF	3,135	2,985	0	0	150
			Corrosion of bottom flanges of ext girders and at ends of all G's below bearings. Active corrosion on girder ends below leaking joint. Corrosion affects ~5% of steel surfaces.						
		3440	Effectiveness (Steel Protective Coatings)	SF		0	0	0	150
X	205		Reinforced Concrete Column	EA	4	4	0	0	0
X	215		Reinforced Concrete Abutment	LF	75	0	57	18	0
			Backwall is spalling and cracking with rust bleeding throughout. Significant rust bleeding from north abutment body and some areas on south abutment. NA: backfill material piled on NE corner. Recent high water event has removed this material (17)						
		1080	Delamination - Spall - Patched Area	LF		0	57	0	0
			SA: areas of delamination with cracking and rust bleeding in body; backwall scaling and leaching along construction joint. NA: delamination with cracking and rust bleeding along front face of body.						
		1130	Cracking (RC)	LF		0	0	18	0
			SA: HL cracking with rust bleeding within and adjacent to delaminated areas.						
X	234		Reinforced Concrete Cap	LF	68	67	1	0	0
			Random H/L cracks. P2 - HL crkng on upstream nose.						
		1080	Delamination - Spall - Patched Area	LF		0	1	0	0
			Upstream nose showing signs of distress-delaminated area with cracking and rust stains.						
		1130	Cracking (RC)	LF		0	0	0	0

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X	300		Strip Seal Expansion Joint	LF	85	0	76	9	0
			Signs of leakage at both joints. HL longitudinal cracks in paving block (1' spacing). Spalls in paving block. Gouges in extrusion from plow. Spalls and delamination in deck and paving block adj to extrusion at both joints.						
		2310	Leakage, Seal Adhesion, Damage, Cracking	LF		0	60	2	0
			Signs of leakage on abutments.						
		2360	Adjacent Deck or Header Damage	LF		0	16	7	0
			Spall/potholes & delamination of deck and header concrete adjacent to strip seal. HL cracking in header.						
X	311		Moveable Bearing	EA	10	0	0	10	0
			Masonry plates experiencing laminated corrosion.						
		1000	Corrosion	EA		0	0	10	0
			Heavy laminated corrosion on masonry plates and hardware.						
		2210	Movement	EA		0	0	0	0
			Movement of bearings may be restricted by pack rust.						
X	313		Fixed Bearing	EA	10	10	0	0	0
		1000	Corrosion	EA		0	0	0	0
X	330		Metal Bridge Rail	LF	223	105	116	2	0
			Rusting at posts. East rail damaged by vehicle impact (1 PANEL). Blush rusting on top channel. Railing attachment bolts rusting from backside.						
		1000	Corrosion	LF		0	106	0	0
			blush rusting on top channel and rust on anchor plates and hardware.						
		1020	Connection	LF		0	0	2	0
			Anchor bolts on 2 posts have been sheared off on east rail.						
		1900	Distortion	LF		0	10	0	0
			damage to east rail - thrie beam dented.						
X	8400		Integral Wingwall	EA	4	2	2	0	0
			SW wall cracking. NW wing spalled in top from something left in concrete.						
		8902	Wall Movement	EA		0	0	0	0
		8903	Wall Deterioration	EA		0	2	0	0

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Assessments

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State			
						1	2	3	4
X	9001		Drainage - Ends of Structure Erosion of slope around end of wings. NW wing severe erosion	EA	4	0	2	1	1
X	9030		Signs - Object Markers Minor damage/scrapes on traffic side edges.	EA	4	0	4	0	0
X	9045		Slope Protection- Riprap Both settling and contain rodent holes. North slope washing away from deck runoff. North slope severe loss of riprap from recent high water event (17)	EA	2	0	1	1	0
X	9167		Steel Diaphragm Blush rusting on diaphragms over piers.	EA	32	24	8	0	0
X	9323		Approach Roadway - Asphalt Wedge, cracked, sealed, settled +/-1/2".	EA	2	0	2	0	0

NBI Ratings

	File	New
Deck	6	6
Superstructure	6	6
Substructure	5	5
Culvert	N	N
Channel	7	7
Waterway	8	8

Structure Specific Notes

Snooped in 2013. Water washing out riprap at north abutment. Flowing around wing or off deck and following forms left in place from slurry fill placement.

CONSIDER SCHEDULING FOR JT REPLACEMENT, CLEAN & PAINT BEARINGS & GIRDER ENDS.

CO = 2018: consider paint all 5 moveable bearings at both abut, replace 2 missing railing anchor bolts, drip edge repair & w-rail nuts rusty.

Inspection Specific Notes

Upstream north west corner of channel needs rip rap placed to control erosion

Inspector Site-Specific Safety Considerations

Structure Inspection Procedures

Special Requirements

	Chk	Hours	Cost	Comments
Other Access Equipment	X			Snooper.

**Underwater Probe Form
B-32-015****General Site Conditions - Scour**

NW corner of upstream bank has severe erosion from recent flood event (17)

General Site Conditions - Embankment Erosion/Conditions

Erosion around wings from deck runoff.

Substructure Notes

Unit	Max Water Depth(ft)	Mode	Notes
Cardinal		Dry	
Pier 1	1.0	Wade	
Pier 2	2.0	Wade	
Non Cardinal		Dry	

Routine

Document Comment/Description

NW corner paving block spall



Routine

Document Comment/Description

Spalling in NB lane



Routine

Document Comment/Description

Spalling and delamination of paving block and edge of deck south end of structure



Routine

Document Comment/Description

Spalling and delamination of paving block and edge of deck south end of structure



Routine

Document Comment/Description

G2 South abutment heavy corrosion of bottom flange at bearing location



Routine

Document Comment/Description

Soffit along west edge starting to spall and crack from drip edge failure similar condition east edge



Routine

Document Comment/Description

Recent high water event caused NW bank upstream of structure to erode away



Routine

Document Comment/Description

NW wing erosion around the wing and bank



Routine

Document Comment/Description

G2 span 3 heavy corrosion on girder flange and bearing area. Also back-wall in this area severe delamination and staining .



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