2016 ROUTINE BRIDGE INSPECTION REPORT



BRIDGE # 90411 BNSF RR over CSAH 58(EDGERTON ST)

DISTRICT: Metro COUNTY: Ramsey CITY/TOWNSHIP: Vadnais Heights

STATE: Minnesota

Date of Inspection: 11/15/2016

Equipment Used:

Owner: Railroad

Inspected By: Essler, Brian

Report Written By: Brian Essler

Report Reviewed By: Nicklaus Fischer

Final Report Date: 12/02/2016



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Minnesota Structure Inventory Report

over CSAH 58(EDGERTON ST) Bridge ID: 90411 Date: 12/02/2016 **BNSF RR** INSPECTION **GENERAL ROADWAY** Bridge Match ID (TIS) Userkey 102 Agency Br. No. Unofficial Structurally Deficient N **District** Metro Roadway O/U Key none Maint. Area Crew **Route Sys** Number Unofficial Functionally Obsolete N County 062 - Ramsey **Roadway Name or Description Unofficial Sufficiency Rating** City Vadnais Heights **Routine Inspection Date** 11/15/2016 **Township** Level of Service **Routine Inspection Frequency** 12 Desc. Loc. 0.1 MI S OF JCT CSAH 16 Inspector Name CO Bridge Roadway Type Sect., Twp., Range - 030N - 22W 32 **Status** A - Open Control Section (TH Only) **Deg** 45 Sec 37.67 Latitude Min 2 Reference Point **NBI CONDITION RATINGS** Longitude Deg 93 **Sec** 36.00 Min 4 Deck **Detour Length** N - Not Applicable Custodian 27 - Railroad **Unsound Deck %** Lanes On Under 2 Owner 27 - Railroad Superstructure 5 - Fair Condition ADT Year **BMU Agreement** Substructure 5 - Fair Condition ADTT 0 % HCADT n Year Built 1948 Channel N - Not Applicable **Functional Class MN Year Reconstructed** Culvert N - Not Applicable **RDWY DIMENSIONS FHWA Year Reconstructed NBI APPRAISAL RATINGS** SB-WB If Divided **NB-EB MN Temporary Status** Structure Evaluation N Roadway Width ft. ft. Bridge Plan Location 5 - OTHER **Deck Geometry** N **Vertical Clearance** ft **Date Opened to Traffic Underclearances** Max. Vert. Clear. ft. ft. **On-Off System** 0 - OFF Water Adequacy N - Not Applicable Horizontal Clear. ft. Legislative District 54B Approach Alignment 8 - Equal to present desirable Lateral Clearance ft. ft. **ABC Suitable SAFETY FEATURES** Appr. Surface Width ft. **STRUCTURE** Bridge Railing N - NOT REQUIRED **Bridge Roadway Width** ft. Service On 2 - Railroad **GR Transition** N - NOT REQUIRED Median Width On Bridge Service Under 1 - Highway, w/ or w/out ped. Appr. Guardrail N - NOT REQUIRED MISC. BRIDGE DATA Main Span Type **GR Termini** N - NOT REQUIRED Structure Flared 0 - No flare 05 - Thru Girder 3 - Steel IN DEPTH INSP. Main Span Detail Parallel Structure N - No parallel structure Y/N Freq Date Appr. Span Type Field Conn. ID Frac. Critical Ν 7 - Timber 01 - Beam Span Abutment Foundation 2 - TIMBER Underwater Ν Appr. Span Detail (Material/Type) 4 - PILE BENT Pinned Asblv. Skew 48 L Pier Foundation 7 - DIFF Spec. Feat. **Culvert Type** (Material/Type) 4 - PILE BENT WATERWAY **Barrel Length** ft. **Historic Status** 5 - Not eligible Drainage Area (sq. mi.) **Cantilever ID Waterway Opening PAINT** NUMBER OF SPANS Navigation Control N - Not applicable, no waterw Year Painted 1980 APPR: 4 TOTAL: 5 MAIN: 1 **Pier Protection** Unsound Paint % 70 Main Span Length 52.0 ft. Nav. Clr. (ft.) Vert. ft. Horiz. ft. Painted Area sq. ft. Structure Length 137.0 Nav. Vert. Lift Bridge Clear. (ft.) ft Primer Type 1 - Lead - non 3309 MN Scour Code A - NON WATER' Year Deck Width (Out-to-Out) 17.0 ft. Finish Type **Deck Material** N - Not Applicable **CAPACITY RATINGS Wear Surf Type** N - Not Applicable (applies onl **Design Load** 8 - RAILROAD **BRIDGE SIGNS** Wear Surf Install Year Operating Rating 2 - AS HS 65.0 Posted Load 0 - Not Required Wear Course/Fill Depth 0.00 Inventory Rating 2 - AS HS 65.0 Traffic 0 - Not Required **Deck Membrane** 0 - None Posting VEH: DBL: **Deck Rebars** N - Not Applicable (no deck) Horizontal 1 - Object Markers **Rating Date Deck Rebars Install Year** Vertical 1 - Rdwy. Clr. Restriction **Minnesota Permit Codes** Structure Area (Out-to-Out) sa. ft. A: N - N/A Roadway Area (Curb-to-Curb) sq. ft. Sidewalk Width Lt 0.00 ft. Rt 0.00 B: N - N/A ft.

Curb Height

Rail Type

Lt 0.00

Lt NN

ft. Rt 0.00

Rt NN

ft

C: N - N/A

Minnesota Structure Inventory Report

BNSF RR over CSAH 58(EDGERTON Bridge ID: 90411

Rail Type

Lt NN

Rt NN

Date: 11/01/2016 +GENERAL+ + R O A D W A Y + +INSPECTION+ Agency Br. No. Crew Bridge Match ID (TIS) Userkey Structurally Deficient District Maint, Area 05 Roadway O/U Key Ν County 062 - Ramsey **Functionally Obsolete** Ν Route Sys Number City Vadnais Heights Sufficiency Rating -2 **Roadway Name or Description** Township **Routine Inspection Date** 11/15/2016 Desc. Loc. 0.1 MI S OF JCT CSAH 16 Level of Service **Routine Inspection Frequency** 32 - 030N - 22W Sect., Twp., Range Roadway Type Inspector Name Essler, Brian 2 ' 37.67 " 45 ° Control Section (TH Only) A - Open Latitude Status 93 • 4 ' 36.00 " Reference Point Longitude CONDITION + N B I RATINGS+ 27 - Railroad Custodian Detour Length mi. Deck Ν Unsound 27 - Railroad UNDER 2 Owner Lanes ON Deck % 5 Superstructure **BMU Agreement** ADT YEAR Substructure 5 Year Built **HCADT** ADTT 1948 % Channel Ν **MN** Year Reconstructed **Functional Class** Culvert N **FHWA Year Reconstructed MN Temporary Status** + N B I APPRAISAL RATINGS+ + R D W Y DIMENSIONS+ **Bridge Plan Location** 5 - OTHER Structure Evaluation Ν If Divided NB-EB SB-WB **Date Opened to Traffic Deck Geometry** Ν Roadway Width ft. ft. On - Off System 0 - OFF 2 Underclearances Vertical Clearance ft. ft. Legislative District 54B Waterway Adequacy Ν Max. Vert. Clear. ft. ft. Potential ABC 2 - N/A Approach Alignment Horizontal Clear. ft. ft. +STRUCTURE+ Lateral Clearance ft. ft. +SAFETY FEATURES+ Appr. Surface Width Service On 2 - Railroad ft. Service Under 1 - Highway, w/ or w/out ped. **Bridge Roadway Width Bridge Railing** N - NOT REQUIRED ft. Median Width On Bridge N - NOT REQUIRED Main Span Type 3 - Steel ft. **GR Transition** N - NOT REQUIRED Main Span Design 05 - Thru Girder Appr. Guardrail +MISC. BRIDGE DATA+ **GR Termini** N - NOT REQUIRED Main Span Detail Structure Flared Appr. Span Type 7 - Timber 0 - No flare DEPTH + I N I N S P. + 01 - Beam Span Appr. Span Design Parallel Structure N - No parallel structure Appr. Span Detail Field Conn. ID Y/N Freq Date LEFT Abutment 2 - TIMBER Frac. Critical Skew 48 Ν Foundation 4 - PILE BENT **Culvert Type** Underwater Ν (Material/Type) **Barrel Length** Pinned Asbly. Ν 7 - DIFF Pier Foundation Cantilever ID Spec. Feat. (Material/Type) 4 - PILE BENT + W A T E R W A Y + **Number of Spans Historic Status** 5 - Not eligible APPR: 4 MAIN: 1 TOTAL: Drainage Area (sq. mi.) 52.0 ft. Main Span Length +PAINT+ Waterway Opening (sf.) 137.0 ft. Structure Length **Navigation Control** N - Not applicable, no 17.0 ft. Deck Width (Out-to-Out) Year Painted 1980 Pier Protection Deck Material N - Not Applicable Unsound Paint % Nav. Clr. (ft.) Vert. 0.0 Horiz. 0.0 Wear Surf Type N - Not Applicable (applies Painted Area sq. ft. Nav. Vert. Lift Bridge Clear. (ft.) Wear Surf Install Year Primer Type 1 - Lead - non 3309 A - NON **MN Scour Code** Year Wear Course/Fill Depth 0.00 ft. Finish Type + C A P A C I T Y RATINGS+ 0 - None Deck Membrane **Design Load** 8 - RAILROAD N - Not Applicable (no deck) +BRIDGE Deck Rebars SIGNS+ 7 - RAILROAD 65.0 **Operating Rating** Deck Rebars Install Year **Inventory Rating** 7 - RAILROAD 65.0 Posted Load 0 - Not Required Structure Area (Out-to-Out) 2329 sq. ft. Posting VEH: SEMI: DBL: Traffic Roadway Area (Curb-to-Curb) sq. ft. 0 - Not Required **Rating Date** Sidewalk Width 50A. Lt 0.00 ft. 50B. Rt 0.00 ft. Horizontal 1 - Object Markers **Overweight Permit Codes** 1 - Rdwy. Clr. Restriction **Curb Height** Lt 0.00 ft. Rt 0.00 ft. Vertical

A N - N/A

B N - N/A

C N - N/A

MINNESOTA BRIDGE INSPECTION REPORT

12/02/2016

BRID	GE 90411 B	NSF RR OVE	R CSAH	58(EDGERTO	N ST)		ROUTI	NE INSP	. DATE:	11/15/20	16
County	: Ramsey		I	Location: 0.1 MI	S OF JCT CSAF	116	Length:	1	37.0 ft.		
City:	Vadnais Hei	ights	I	Route:	Ref. Pt.:		Deck Wid	lth:	17.0 ft.		
Townsl	hip:		(Control Section:			Rdwy. Ar	ea/ Pct. Ur	snd: sq. ft	t. / %	
Section	n: 32 Towns	ship: 030N Ra	ange: 22W	Maint. Area:			Paint Are	a/ Pct. Uns	and: sq. ft	t. / 70%	
Span T	ype: 3 - Steel 3 -	-	-	Local Agency Br	ridae Nbr.:		Culvert:	N/A	•		
List:	System				9		Postings:				
NBI De	eck: N Super	r: 5 Sub: 5	5 Chan	: N Culv: N	I						
				Open, Po	osted, Closed: A	- Open					
				MN Scou	ır Code: A - NON	N WATERWAY					
	sal Ratings - Appr		Vaterway:	N			Un	official Stru	acturally De	eficient 1	N
Require	ed Bridge Signs -	Load Posting: (0 - Not Req	uired	Traffic: 0 -	Not Required	Un	official Fur	ctionally C	bsolete 1	1
		Horizntal:	1 - Object N	1arkers		Rdwy. Clr. estriction	Un	official Suf	ficiency Ra	ating 1	N
ELEM							QTY	QTY	QTY	QTY	QTY
NBR	ELEMEN	T NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	CS 1	CS 2	CS 3	CS 4	CS 5
107	Painted Steel G	irder or Beam	2	Routine	11/15/2016	486 LF	0	0	486	0	0
				Routine	11/12/2015	486 LF	0	0	486	0	0
111	Timber Girder o	r Beam	2 2015] There	Routine Routine Routine e is minor decay w	11/15/2016 11/12/2015 ith some splitting	269 LF 269 LF and cracking.	0 0	269 269	0 0	0 0	N/A N/A
206	Timber Column		2	Routine	11/15/2016	36 EA	0	33	3	0	N/A
				Routine	11/12/2015	36 EA	0	33	3	0	N/A
		[2007-2015] Th [2012-2015] Ti [2012-2015] SI [2001-2015] SI	nere is som mber colun light moven light moven	1 has a section lose rotting top of timens contain some intent to timber colument to 3 columns opears to have sta	ber bracing at the minor to moderate mns #13 & #14 or (#19, #20 & #23)	NW corner. All cracking and so the west side.	splitting.				
210	Reinforced Con	crete Pier Wall	2	Routine	11/15/2016	52 LF	0	51	1	0	N/A
				Routine	11/12/2015	52 LF	0	51	1	0	N/A
		[2010-2015] M [2007-2015] Th [2007-2015] Th [2011-2015] M [2007-2015] Th span of east pi	oderate spanere is a sc nere is a sc nere is som ajor spall a nere is a mo ier wall bac	e is moderate pain alls and cracking a rape on west pier e delamination on t SW corner of eas oderate 6' vertical k side. ce finish on the co	re present on bot wall at the SE cor east pier wall at t st pier wall. crack mid span w	h pier walls. Th ner. There is m he SW corner o est side of east	inor vertical of the east p	l cracking a pier wall.	at mid spar	of west pi	
216	Timbor Abutmos	nt	2	Double a	14/45/0040	39 LF	0	30	0	0	N/A
216	Timber Abutmer	ıı	2	Routine	11/15/2016		0	39			
		[2006-2015] Al	lignment is	Routine abutments have so good for both abut & washers are mis	ments.		0 ting.	39	0	0	N/A

ROUTINE INSP. DATE: 11/15/2016

ELEM NBR	ELEMENT	NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5	
235	Timber Pier Cap		2	Routine	11/15/2016	108 LF	0	108	0	0	N/A	
				Routine	11/12/2015	108 LF	0	108	0	0	N/A	
		Notes: [2008-2015] Alignment is good. [2001-2015] Timber pier cap has some moderate splitting and cracking are present.										
311	Expansion Beari	ng	2	Routine	11/15/2016	4 EA	0	4	0	N/A	N/A	
				Routine	11/12/2015	4 EA	0	4	0	N/A	N/A	
		Notes: [200	1-2015] Mino	or deterioration. Som	e buildup of debr	is.						
313	Fixed Bearing		2	Routine	11/15/2016	4 EA	0	4	0	N/A	N/A	
				Routine	11/12/2015	4 EA	0	4	0	N/A	N/A	
		Notes: [200	I-2015] Mino	or deterioration.								
362	Traffic Impact Sr	mart Flag	2	Routine	11/15/2016	1 EA	0	0	1	N/A	N/A	
002			_	Routine	11/12/2015	1 EA	0	0	1	N/A	N/A	
386	Timber Wingwall	bracing requ	ires replacer 2	ment. Routine	11/15/2016	4 EA	0	4	0	0	N/A	
206	Timber Wingwall		2	Poutino	11/15/2016	<i>4</i> ΕΔ	0	1	0	0	N/A	
000			_	Routine	11/12/2015	4 EA	0	4	0	0	N/A	
				re is some minor to n ne undermining & ero					ome check	ing at the S	E corner.	
964	Critical Finding S	Smart Flag	2	Routine	11/15/2016	1 EA	1	0	N/A	N/A	N/A	
				Routine	11/12/2015	1 EA	1	0	N/A	N/A	N/A	
		Notes: DO N	OT DELET	E THIS CRITICAL FI	NDING SMART	FLAG.						
981	Signing		1	Routine	11/15/2016	1 EA	0	0	1	0	0	
				Routine	11/12/2015	1 EA	0	0	1	0	0	
		[2008-2015] [2007] New h There also s	Vertical clea norizontal cle nould be a c	zontal clearance mai trance warning signs earance marker sign learance sign postec and horizontal cleara	are in place. was installed at t I at the bridge an	he NW corner o	of the bridg		l clearance	e 13' 5".		
982	Approach Guard	rail	2	Routine	11/15/2016	1 EA	0	1	0	N/A	N/A	
				Routine	11/12/2015	1 EA	0	1	0	N/A	N/A	
		Notes: [2014-2015] There is moderate damage to the twisted end treatment at the NW corner. [2013-2015] Moderate collision damage to the guardrail at the NE section. [2003-2015] Moderate collision damage to the guardrail at the SW and NW section. [1999-2015] No guardrail twisted end section at the SE corner of the bridge. Not required as per MNDOT Bridge Office										
985	Slopes & Slope F	Protection	1	Routine	11/15/2016	1 EA	0	1	0	N/A	N/A	
			•	Routine	11/12/2015	1 EA	0	1	0	N/A	N/A	
		Notes: [100	7-20151 Dine	ap is eroding at the N		oridae						
		notes: [199]	-2015] Ripri	ap is erouing at the r	v⊏ corner or the i	onage.						

	RIDGE 90411 BNSF RR OVER CSAH 58(EDGERTON ST)							ROUTINE INSP. DATE: 11/15/2016					
ELEM NBR	ELEMENT	NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5		
988	Miscellaneous Ite	ems	1	Routine	11/15/2016	1 EA	0	1	0	N/A	N/A		
				Routine	11/12/2015	1 EA	0	1	0	N/A	N/A		
	<u> </u> 	[2006-2015] [2003-2015] [2001-2015] There is a pe Retaining wa	There is slig Brush need There is no edestrian pa Ill adjacent t	re is moderate corros ght movement of timb is to be cleaned up or hand railing on top of th under the bridge of to path has been replace	er bracing. the SE corner of the bridge. In the west side. aced with a conc	f the bridge.	ning wall ir	n 2010.					
	General Notes:	[2015] Brid [2014] Brid [2013] Brid New Bitum [2012] Brid 2011 Bridg 2010 Bridg 2009 Bridg 2008 Safet 2007 Safet 2006 Safet	ge safety in ge safety in ge safety in inous mill & ge safety in e safety inse safety inse safety inse safety insy Inspectiory Inspectiory Inspectiory	spection was completed by B. Wien completed by Bret Virus in Completed by B. Wien completed by B. Wien completed by B. Wien completed by Bret Virus girders serve as respection graphs and the completed by Bret Virus girders serve as respection serves as respection was completed by B. Wien completed by B. Wien completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respection was completed by Bret Virus girders serve as respectively.	ted by B. Essler and by B. Essler and by B. Wieman B. Wieman 11/0 B. Wieman 10/2/2008. There is reman and B. Ess Vieman 10/25/20	& D Bodelson o Ison & Randy B & D Bodelson o n on 11/9/2012. on 11/1/2011. 3/2010. 1/2009. moderate corros ler 8/13/2007.	n 11/12/20 Bussiere or n 11/7/20	015. n 11/7/2014 13.	4.				
	58. Deck NBI:	No deck ra	ilroad bridge	е									
36A. E	Brdg Railings NBI:	No railing r	ailroad brid	ge									
36E	3. Transitions NBI:	railroad bri	dge										
36C. Ap	opr Guardrail NBI:	railroad bri	dge										
36	D. Appr Guardrail Terminal NBI:	railroad bri	dge										
59. St	uperstructure NBI:			rrosion present. Paint th some splitting and			rosion of g	jusset plate	es. Traffic c	lamage to	steel		
60.	Substructure NBI:	moderate o	cracking and	d splitting & movemen	t on timber colur	nns. Moderate s	spalls and	cracking o	n pier walls	S.			
	61. Channel NBI:	Not over w	ater										
	62. Culvert NBI:	Bridge											
71. Wa	iterway Adeq NBI:	Not over w	ater										
	70 Amma Danduunu	no speed r	eduction red	quired									
	Alignment NBI:												

MINNESOTA BRIDGE INSPECTION REPORT

12/02/2016

Inspector: CO Bridge

BRIDGE 90411 BNSF RR OVER CSAH 58(EDGERTON ST)

County: Ramsey Location: 0.1 MI S OF JCT CSAH 16 Length: 137.0 ft. City: Vadnais Heights Route: Ref. Pt.: Deck Width: 17.0 ft. Township: Control Section: Rdwy. Area/ Pct. Unsnd: sq. ft. / % Section: 32 Township: 030N Range: 22W Maint. Area: Paint Area/ Pct. Unsnd: sq. ft. / 70% Span Type: 3 - Steel 3 - Girder and Floorbeam Local Agency Bridge Nbr.: Culvert: N/A System List: Postings: NBI Deck: N Super: 5 Sub: 5 Chan: Ν Culv: N Open, Posted, Closed: A - Open MN Scour Code: A - NON WATERWAY Appraisal Ratings - Approach: Waterway: **Unofficial Structurally Deficient** Ν Required Bridge Signs - Load Posting: 0 - Not Required Traffic: 0 - Not Required Unofficial Functionally Obsolete Ν Horizntal: 1 - Object Markers Vertical: 1 - Rdwy. Clr. **Unofficial Sufficiency Rating** Ν Restriction **ELEM** QTY QTY QTY QTY **ELEMENT NAME** REPORT TYPE INSP. DATE QUANTITY NBR CS₁ CS₂ CS₃ CS₄ Steel Open Girder/Beam 486 LF 0 486 0 0 107 11/15/2016 Routine 486 LF 0 486 0 0 Migrated Values Notes: [2014-2016] There is minor to moderate damage to west end of south girder. [2008-2016] There is moderate corrosion of gusset plates. [2007-2016] Two nuts & bolts are missing at the NE corner. Two nuts & bolts are missing at the SW corner. [2001-2016] Exposed steel with corrosion present. Paint system has failed. Steel girders need paint. [2004-2016] There are moderate scrapes bottom of south thru girder over southbound lane. Diagonal bracing could be replaced. Two - 60" X 52' steel "Thru Girders" serve as railing. There are 12 - 23' steel girders and 4 - 52' steel girders for a total of (12 X 23) + (4 X 52) = 484 LF. Includes Two - 60" X 52' steel "Thru Girders". 515 - Steel Protective Coating 11/15/2016 7692 SF 0 0 7692 0 Routine 7692 SF 0 0 7692 0 Migrated Values Notes: [2008-2016] There is moderate corrosion of gusset plates. [2001-2016] Exposed steel with corrosion present. Paint system has failed. Steel girders need paint. [2016] 2 through girders 52' long with a 5' web and a 1.5' flange 2 X 52' X (2 X 5' + 3 X 1.5')= 4680 SF 2 beams 52' long with a 1' 8" web and a 1' 1" flange 2 X 52' X (2 X 20"/12 + 3 X 13"/12)= 685 SF 12 beams 23' long with a 1' 10" web and a 10" flange 12 X 23' X (2 X 22"/12 + 3 X 10"/12)= 1702 SF 5 floor beams 15 long with a 2' 4" web and a 1' 4" flange 5 X 15' X (2 X 26"/12 + 3 X 16"/12)= 625 SF 269 0 0 Timber Open Girder/Beam 269 LF 0 111 Routine 11/15/2016 269 LF 0 269 0 0 Migrated Values Notes: [2001-2016] There is minor decay with some splitting and cracking. 52 LF 0 51 1 0 210 Reinforced Concrete Pier Wall Routine 11/15/2016 0 52 LF 0 51 1 Migrated Values Notes: [2014-2016] There is moderate paint failure on both pier walls. [2010-2016] Moderate spalls and cracking are present on both pier walls. There are minor scrapes both sides. [2007-2016] There is a scrape on west pier wall at the SE corner. There is minor vertical cracking at mid span of west pier wall. [2007-2016] There is some delamination on east pier wall at the SW corner of the east pier wall. [2011-2016] Major spall at SW corner of east pier wall. [2007-2016] There is a moderate 6' vertical crack mid span west side of east pier wall and minor vertical crack full height mid span of east pier wall back side. [1995-2016] Special surface finish on the concrete piers are starting to peel & flake off. **Timber Abutment** 117 LF 0 117 0 0 216 Routine 11/15/2016 117 LF 0 0 0 Migrated Values 117 Notes: [2016] 78 LF added to abutment quantity to account for wingwalls [2012-2016] Both abutments have some moderate cracking and splitting. [2006-2016] Alignment is good for both abutments. [1985-2016] Various nuts & washers are missing on the west abutment. Wingwall notes: [2012-2016] There is some minor to moderate decay with cracking and splitting present. Some checking at the SE corner. [2003-2016] There is some undermining & erosion @ NE corner. Minor erosion at the SW corner.

BRIDGE 90411 BNSF RR OVER CSAH 58(EDGERTON ST)

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	
228	Timber Pile	Routine	11/15/2016	36 EA	0	33	3	0	
	Notes: [2015-2016] Column #11 has a [2007-2016] There is some rotting top o [2012-2016] Timber columns contain so [2012-2016] Slight movement to timber [2001-2016] Slight movement to 3 column [2012-2016] Movement appears to have	of timber bracing at the ome minor to moderate columns #13 & #14 c mns (#19, #20 & #23)	e NW corner. Alste cracking and son the west side.	splitting.				O r.	
235	Timber Pier Cap	Routine	11/15/2016	108 LF	0	108	0	0	
	Notes: [2008-2016] Alignment is good. [2001-2016] Timber pier cap has some		d cracking are p	108 LF resent.	0	108	0	0	
311	Movable Bearing	Routine	11/15/2016	4 EA	0	4	0	0	
		Migrated Values		4 EA	0	4	0	0	
	Notes: [2001-2016] Minor deterioration	. Some buildup of de	bris.						
313	Fixed Bearing	Routine	11/15/2016	4 EA	0	4	0	0	
	N	Migrated Values		4 EA	0	4	0	0	
	Notes: [2001-2016] Minor deterioration								
800	Critical Deficiencies or Safety Hazards	Routine	11/15/2016	1 EA	1	0	0	0	
	Notes: NO CRITICAL FINDINGS OBSI	Migrated Values ERVED DURING TH	E LAST INSPEC	1 EA TION.	1	0	0	0	
880	Impact Damage	Routine	11/15/2016	1 EA	0	0	0	1	
000		Migrated Values	11/10/2010	1 EA	0	0	0	1	
	Notes: [2007-2016] Steel girders over s [2006-2016] Alignment of the girders ar [2002-2016] Lateral bracing struck from [2012-2016] Lateral bracing is split at th replacement.	e within tolerances. underside causing d	eformation on tw	o southbound t	oraces.	agonal bra	cing. Diago	onal bracing	requires
890	Load Posting or Vertical Clearance Signing	Routine	11/15/2016	1 EA	0	0	1	0	
		Migrated Values		1 EA	0	0	1	0	
	Notes: [2016] Structure requires a verti There also should be a clearance sign p		and at the neares	st intersection. \	ertical cle	arance 13'	5".		
891	Other Bridge Signing	Routine	11/15/2016	1 EA	0	0	1	0	
	Notes: [2008-2016] Horizontal clearanc [2008-2016] Vertical clearance warning [2007] New horizontal clearance marke There also should be a clearance sign p Signs required: Vertical and horizontal of	signs are in place. r sign was installed a posted at the bridge a	t the NW corner	of the bridge.	0 /ertical cle	0 arance 13'	1 5".	0	
892	Slopes & Slope Protection	Routine	11/15/2016	1 EA	0	1	0	0	
	Notes: [2016] Moderate erosion on eas	Migrated Values st bank at piling		1 EA	0	1	0	0	
	[1997-2016] Riprap is eroding at the NE								
893	Guardrail	Routine	11/15/2016	1 EA	0	1	0	0	
	N root : co. co. The co. co.	Migrated Values	1 12 1	1 EA	0	1	0	0	
	Notes: [2014-2016] There is moderate [2013-2016] Moderate collision damage [2003-2016] Moderate collision damage [1999-2016] No guardrail twisted end se	e to the guardrail at the to the guardrail at the	e NE section. e SW and NW s	ection.		OT Bridge (Office.		

BRIDGE 90411 BNSF RR OVER CSAH 58(EDGERTON ST)

ELEM NBR	ELEM	IENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	
894	Deck & Approach	n Drainage	Routine	11/15/2016	1 EA	1	0	0	0	
			Migrated Values		1 EA	1	0	0	0	
		Drainage is functioning CB's north of bridge								
99	Miscellaneous Ite	ems	Routine	11/15/2016	1 EA	0	1	0	0	
			Migrated Values		1 EA	0	1	0	0	
	[2006-2016] Th [2003-2016] Br [2001-2016] Th There is a pede Retaining wall	nere is slight movements heeds to be cleated and railing the strian path under the adjacent to path has	rate corrosion of gusset pent of timber bracing. Aned up on the SE corner g on top of the bridge. e bridge on the west side been replaced with a core ten replaced in 2008.	r of the bridge.	ining wall in 201	0.				
00	Protected Specie		Routine	11/15/2016	1 EA	1	0	0	0	
50			Migrated Values	11/10/2010	1 EA	1	0	0	0	
	Notes: [2016]	No protected species	s found living on this stru	cture.			-			
	General Notes:	[2015] Bridge safety [2014] Bridge safety [2013] Bridge safety New Bituminous mi [2012] Bridge safety 2011 Bridge safety 2010 Bridge safety 2009 Bridge safety 2008 Safety Inspec	y inspection was complety inspection was complety inspection was complety inspection was completill & overlay 2013. y inspection was completinspection was conducted inspection completed by inspection completed by inspection by B. Wieman 10/15	ted by Brian Ess ted by B. Essler ted by Dan Bode ted by B. Essler ted by B. Wieman d by B. Wieman B. Wieman 11/0 B. Wieman 10/2 t/2008. There is i	& D Bodelson or Ison & Randy B & D Bodelson or non 11/9/2012. on 11/1/2011. 3/2010. 11/2009. moderate corros	n 11/12/20 ussiere or n 11/7/201	015. n 11/7/2014 13.			
		[2015] Bridge safety [2014] Bridge safety [2013] Bridge safety New Bituminous mi [2012] Bridge safety 2011 Bridge safety 2010 Bridge safety 2009 Bridge safety 2008 Safety Inspect 2007 Safety Inspect 2006 Safety Inspect Two - 60" X 52' stee	y inspection was complety inspection was complety inspection was complety inspection was complety inspection was completill & overlay 2013. y inspection was completinspection was conducted inspection completed by inspection by B. Wieman 10/15 wittion completed by B. Wiettion completed by Bret Well thru girders serve as reasonable.	ted by Brian Ess ted by B. Essler ted by Dan Bode ted by B. Wieman d by B. Wieman B. Wieman 11/0 B. Wieman 10/2 5/2008. There is a teman and B. Ess Vieman 10/25/20	& D Bodelson of Ison & Randy B & D Bodelson of n on 11/9/2012. on 11/1/2011. 3/2010. 11/2009. moderate corros ler 8/13/2007.	n 11/12/20 ussiere or n 11/7/201	015. n 11/7/2014 13.			
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Brian Essler	Nicklaus Fischer
Inspector's Signature	Reviewer's Signature

Pictures



Photo 1 - looking west

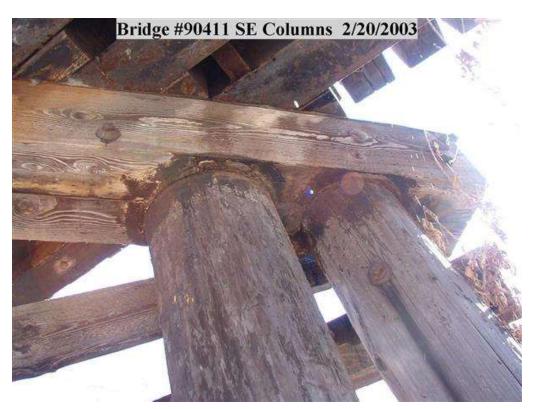


Photo 2 - secolumns2-20-03

Pictures



Photo 3 - looking north 2013



Photo 4 - looking south 2013

Pictures



Photo 5 - SW corner of East pier wall 2013