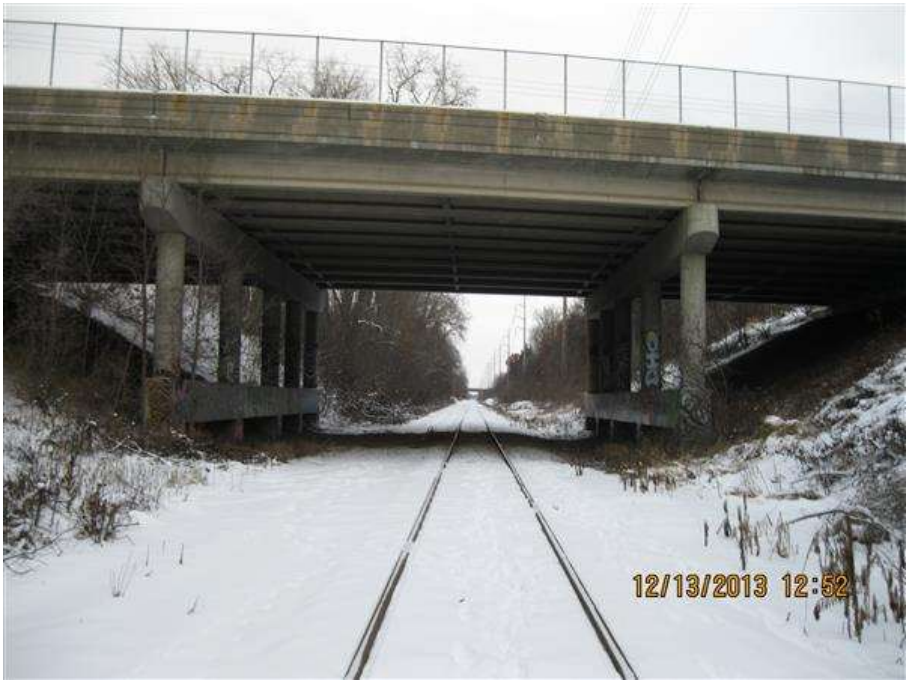
2015 ROUTINE
BRIDGE INSPECTION REPORT



BRIDGE # 62079
CO Road E (CSAH 15 over BNSF RR

DISTRICT: Metro **COUNTY:** Ramsey **CITY/TOWNSHIP:** WHITE BEAR LAKE

Date(s) of Inspection: 11/12/2015
Equipment Used:

Owner: County Highway Agency

Inspected By: Bodelson, Dan; Essler, Brian

Report Written By: Dan Bodelson
Report Reviewed By: Nicklaus Fischer
Final Report Date: 01/05/2016

MnDOT Bridge Office
3485 Hadley Avenue North
Oakdale, MN 55128

Table of Contents

MnDOT Structure Inventory Report

Bridge ID: 62079 CO Road E (CSAH 15 **over** BNSF RR **Date:** 01/05/2016

GENERAL

Agency Br. No.
District Metro
Maint. Area **Crew**
County 062 - Ramsey
City WHITE BEAR LAKE
Township
Desc. Loc. 0.2 MI E OF JCT TH 61
Sect., Twp., Range 34 - 030N - 22W
Latitude **Deg** 45 **Min** 3 **Sec** 1.07
Longitude **Deg** 93 **Min** 1 **Sec** 57.75
Custodian 02 - County Highway Agency
Owner 02 - County Highway Agency
BMU Agreement
Year Built 1977
MN Year Reconstructed
FHWA Year Reconstructed
MN Temporary Status
Bridge Plan Location 1 - CENTRAL
Date Opened to Traffic 1/1/1977
On-Off System 1 - ON
Legislative District 54B

STRUCTURE

Service On 5 - Highway-pedestrian
Service Under 2 - Railroad
Main Span Type
5 - Prestress or Precast 01 - Beam Span
Main Span Detail
Appr. Span Type
Appr. Span Detail
Skew 10 R
Culvert Type
Barrel Length ft.
Cantilever ID

NUMBER OF SPANS

MAIN: 3 **APPR:** 0 **TOTAL:** 3
Main Span Length 50.8 ft.
Structure Length 154.0 ft.
Deck Width (Out-to-Out) 86.3 ft.
Deck Material 1 - Concrete Cast-in-Place
Wear Surf Type 4 - Low Slump Concrete
Wear Surf Install Year 1977
Wear Course/Fill Depth 0.12 ft.
Deck Membrane 0 - None
Deck Rebars 1 - Epoxy Coated Reinforcing
Deck Rebars Install Year 1977
Structure Area (Out-to-Out) 13290 sq. ft.
Roadway Area (Curb-to-Curb) 9548 sq. ft.
Sidewalk Width **Lt** 10.00 ft. **Rt** 12.00 ft.
Curb Height **Lt** 0.50 ft. **Rt** 0.50 ft.
Rail Type **Lt** 21 **Rt** 21

ROADWAY

Bridge Match ID (TIS) 0
Roadway O/U Key Route On Structure
Route Sys 04 - CSAH **Number** 15
Roadway Name or Description
CSAH 15
Level of Service 1 - MAINLINE
Roadway Type 2 - 2-way traffic
Control Section (TH Only)
Reference Point 009+00.621
Detour Length 2.0 mi
Lanes **On** 4 **Under** 0
ADT 12948 **Year** 2008
HCADT 259 **ADTT** 2 **%**
Functional Class 16 - Urban - Minor Arterial

RDWY DIMENSIONS

If Divided	NB-EB	SB-WB
Roadway Width	62.00 ft.	ft.
Vertical Clearance	ft.	ft.
Max. Vert. Clear.	ft.	ft.
Horizontal Clear.	61.9 ft.	ft.
Lateral Clearance	ft.	ft.

Appr. Surface Width 60.0 ft.
Bridge Roadway Width 62.0 ft.
Median Width On Bridge ft.

MISC. BRIDGE DATA

Structure Flared 0 - No flare
Parallel Structure N - No parallel structure
Field Conn. ID
Abutment Foundation 1 - CONC
(Material/Type) 3 - FTG PILE
Pier Foundation 1 - CONC
(Material/Type) 1 - SPRD SOIL
Historic Status 5 - Not eligible

PAINT

Year Painted
Unsound Paint %
Painted Area sq. ft.
Primer Type
Finish Type

BRIDGE SIGNS

Posted Load 0 - Not Required
Traffic 0 - Not Required
Horizontal 0 - Not Required
Vertical N - Not Applicable

INSPECTION

Userkey 102
Unofficial Structurally Deficient N
Unofficial Functionally Obsolete N
Unofficial Sufficiency Rating 98.2
Routine Inspection Date 11/12/2015
Routine Inspection Frequency 24
Inspector Name County, Ramsey
Status A - Open

NBI CONDITION RATINGS

Deck 7 - Good Condition
Unsound Deck %
Superstructure 7 - Good Condition
Substructure 7 - Good Condition
Channel N - Not Applicable
Culvert N - Not Applicable

NBI APPRAISAL RATINGS

Structure Evaluation 7
Deck Geometry 6
Underclearances 9
Water Adequacy N - Not Applicable
Approach Alignment 8 - Equal to present desirabl

SAFETY FEATURES

Bridge Railing 1 - MEETS STANDARDS
GR Transition 1 - MEETS STANDARDS
Appr. Guardrail 1 - MEETS STANDARDS
GR Termini 1 - MEETS STANDARDS

IN DEPTH INSP.

	Y/N	Freq	Date
Frac. Critical			
Underwater			
Pinned Asbly.			
Spec. Feat.			

WATERWAY

Drainage Area (sq. mi.)
Waterway Opening sq. ft.
Navigation Control N - Not applicable, no waterw
Pier Protection
Nav. Clr. (ft.) **Vert.** ft. **Horiz.** ft.
Nav. Vert. Lift Bridge Clear. (ft.)
MN Scour Code A - NON WATER' **Year**

CAPACITY RATINGS

Design Load 5 - HS 20
Operating Rating 1 - LF (LF) HS 42.6
Inventory Rating 1 - LF (LF) HS 25.5
Posting VEH: **SEMI:** **DBL:**
Rating Date 5/5/2003

MnDOT Permit Codes

A: 1 - No Restriction
B: 1 - No Restriction
C: 1 - No Restriction

MnDOT Structure Inventory Report

Additional Roadways

Bridge ID: 62079 CO Road E (CSAH 15 over BNSF RR **Date:** 01/05/2016

MnDOT BRIDGE INSPECTION REPORT

01/05/2016

Inspector: County, Ramsey

BRIDGE 62079 CO Road E (CSAH 15 OVER BNSF RR **ROUTINE INSP. DATE: 11/12/2015**

County: Ramsey
City: WHITE BEAR LAKE
Township:
Section: 34 Township: 030N Range: 22W
Span Type: 5 - Prestressed Concrete 02 - Stringer/Multi-beam or Girder
List:
NBI Deck: 7 Super: 7 Sub: 7 Chan: N

Location: 0.2 MI E OF JCT TH 61
Route: 04 - CSAH 15 Ref. Pt.: 009+00.621
Control Section:
Maint. Area:
Local Agency Bridge Nbr.:
Culv: N
Open, Posted, Closed: A - Open
MN Scour Code: A - NON WATERWAY

Length: 154.0 ft.
Deck Width: 86.3 ft.
Rdwy. Area/ Pct. Unsnd: 9548 sq. ft. / %
Paint Area/ Pct. Unsnd: sq. ft. / %
Culvert: N/A
Postings:

Appraisal Ratings - Approach: 8 Waterway: N
Required Bridge Signs - Load Posting: 0 - Not Required Traffic: 0 - Not Required
Horizntal: 0 - Not Required Vertical: N - Not Applicable

Unofficial Structurally Deficient N
Unofficial Functionally Obsolete N
Unofficial Sufficiency Rating 98.2

Structure Unit:

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
109	Prestressed Concrete Girder or Beam	2	Routine	11/12/2015	1384 LF	0	1382	2	0	N/A
			Routine	11/27/2013	1384 LF	0	1382	2	0	N/A

☐ Requires Monitoring ☐ Monitored

Notes: [2007-2015] Girders #6 & #7 east end has moderate size spall.
36" Deep pre-stressed beams.

205	Reinforced Concrete Column	2	Routine	11/12/2015	10 EA	0	10	0	0	N/A
			Routine	11/27/2013	10 EA	0	10	0	0	N/A

☐ Requires Monitoring ☐ Monitored

Notes: [2007-2015] Column #2 has a 6" spall at base.
[2003-2015] Minor spalls are present. There are spalls at south end of west strut.
West strut is charred from fire 1998. Both piers have RR crash struts.

215	Reinforced Concrete Abutment	2	Routine	11/12/2015	180 LF	172	8	0	0	N/A
			Routine	11/27/2013	180 LF	172	8	0	0	N/A

☐ Requires Monitoring ☐ Monitored

Notes: [2015] 3" x 2" spall in NW corner.
[2003-2015] The south 1/2 of both abutments have 4 vertical cracks. 4X2 X 2' = 16 LF of vertical cracks.

234	Reinforced Concrete Pier Cap	2	Routine	11/12/2015	180 LF	180	0	0	0	N/A
			Routine	11/27/2013	180 LF	180	0	0	0	N/A

☐ Requires Monitoring ☐ Monitored

Notes: [2003-2015] No deficiencies of concrete pier cap. There is some debris on top of the concrete caps.

Structure Unit:

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
300	Strip Seal Deck Joint	2	Routine	11/12/2015	180 LF	0	180	0	N/A	N/A
			Routine	11/27/2013	180 LF	0	180	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2003-2015] Minor leakage, needs to cleaned and flushed for further inspection.
Type "H" strip seal installed at abutments 1977.

301	Poured Deck Joint	2	Routine	11/12/2015	180 LF	0	180	0	N/A	N/A
			Routine	11/27/2013	180 LF	0	180	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2003-2015] Minor adhesion and cohesion failures. Some leaching below pier joints.

310	Elastomeric (Expansion) Bearing	2	Routine	11/12/2015	27 EA	27	0	0	N/A	N/A
			Routine	11/27/2013	27 EA	27	0	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2003-2015] Abutment bearings encased by concrete diaphragms. Some minor deterioration.

313	Fixed Bearing	2	Routine	11/12/2015	27 EA	27	0	0	N/A	N/A
			Routine	11/27/2013	27 EA	27	0	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2013-2015] Interior bearings (Both piers) are fixed. Some minor deterioration.

321	Concrete Approach Slab-Concrete Wearing Surface	2	Routine	11/12/2015	2 EA	0	2	0	0	N/A
			Routine	11/27/2013	2 EA	0	2	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: [2011-2015] Moderate spalls are present on both approach panels. There is some deterioration of the west approach slab at construction joint.
[2009-2015] There is minor- moderate settlement of both approach panels.
[2013-2015] The west approach slab has 40 LF of major longitudinal cracks. The east approach slab has 40 LF of moderate longitudinal cracking. The approach panel cracks require rehabilitation. Some major spalls are present at cracks.
[1985] Approach modified to match widened sidewalk.

Structure Unit:

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
333	Masonry, Other or Combination Material Railing	2	Routine	11/12/2015	308 LF	0	308	0	N/A	N/A
			Routine	11/27/2013	308 LF	0	308	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2015] Spall on west end & @ center of north railing.
[2007-2015] There are some scrapes on the north side due to snow plows.
[2007-2015] There are mid section vertical cracks with efflorescence at fence posts.
Concrete parapet also needs surface treatment.
[2003-2015] Chain link fence is bent outward at the NW corner.
Rail code 21 (Concrete parapet & 6 FT C-L fence).

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
358	Concrete Deck Cracking Smart Flag	2	Routine	11/12/2015	1 EA	0	1	0	0	N/A
			Routine	11/27/2013	1 EA	0	1	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: [2013-2015] There are numerous moderate size transverse and diagonal cracks. Diagonal cracking at the corners. There are 250 LF of unsealed moderate size cracks.

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
359	Underside of Concrete Deck Smart Flag	2	Routine	11/12/2015	1 EA	0	1	0	0	0
			Routine	11/27/2013	1 EA	0	1	0	0	0

☐Requires Monitoring ☐Monitored

Notes: [2011-2015] Total distressed area is less than 2% (condition state 2).
Span #1
[2011-2015] Between girders #2 & #3 near abutment there is a 1' X 2' spall with corrosion and exposed rebar. Also a 4' diagonal crack w/efflorescence between girders #2 & #3 near abutment.
[2013-2015] Between #5 & #6 girders there is a 6" X 6" & 1.5' x 6" spall at pier.
[2013-2015] Between girders #7 & #8 @ west abutment there are 4 diagonal cracks with efflorescence.
[2013-2015] Between girders #8 & #9 @ west abutment there is a 6' diagonal crack with efflorescence.
[2015] Between girders #8 & #9 @ west abutment some delamination (4' x 6" & 2' x 6")
Midspan
[2011-2015] There are 2 transverse cracks w/efflorescence between #6 & #7 girders at mid span.
Span #3
[2013-2015] Between girders #2 & #3 at abutment there is some delamination and corrosion present.
[2013-2015] There is a 4' diagonal crack w/efflorescence between girders #6 & #7 near east abutment. There are also two transverse cracks w/eff. between pier & east abutment between girder #6 & #7. Between #6 & #7 there are several patches from barrier anchors placed during staged construction 1983. The patches are still holding.
[2013-2015] Between #7 & #8 there are 1- 6' and 2- 4' diagonal cracks w/ efflorescence. Between girders #8 & #9 there are 3- 4' diagonal cracks w/efflorescence .
[2013-2015] Underside of deck has a total of 150 LF of minor leaching cracks.
[2013-2015] Some leaching below pier joints.

Structure Unit:

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
377	Low Slump O/L (Concrete Deck with Epoxy Rebar)	2	Routine	11/12/2015	13293 SF	0	13293	0	0	0
			Routine	11/27/2013	13293 SF	0	13293	0	0	0

☐Requires Monitoring ☐Monitored

Notes: [2011-2015] There is approximately 250 LF of unsealed moderate size cracks.
Numerous transverse and diagonal cracks developing throughout deck. Moderate size diagonal cracking at corners.
[2007-2015] Distress deck area is < 2.0%.
[2011-2015] There are 3 moderate - major spalls@ expansion device on the east end.
[2005-2015] Low slump wearing surface has exposed aggregate.
[1977] Low slump overlay (3 Lanes - 1 each direction & center turn lane).
[2005-2015] Low slump overlay has light scale both sides.

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
380	Secondary Structural Elements	1	Routine	11/12/2015	72 EA	0	72	0	0	N/A
			Routine	11/27/2013						

☐Requires Monitoring ☐Monitored

Notes: [2005-2015] Concrete diaphragms in place.

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
387	Reinforced Concrete Wingwall	2	Routine	11/12/2015	4 EA	2	2	0	0	N/A
			Routine	11/27/2013	4 EA	2	2	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: [2015] 6" minor crack in top of SE wingwall.
[2015] 3' minor vertical crack in NW wingwall.
[2013-2015] SW wingwall has minor horizontal cracking with a moderate spall on top.
[2013-2015] NE WW contains two moderate spalls.
[2013-2015] NW and SE wingwalls has some minor deterioration.

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
964	Critical Finding Smart Flag	2	Routine	11/12/2015	1 EA	1	0	N/A	N/A	N/A
			Routine	11/27/2013	1 EA	1	0	N/A	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: DO NOT DELETE THIS CRITICAL FINDING SMART FLAG.

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
981	Signing	2	Routine	11/12/2015	1 EA	1	0	0	0	0
			Routine	11/27/2013	1 EA	1	0	0	0	0

☐Requires Monitoring ☐Monitored

Notes: [2007-2015] All required signing is in place.

Structure Unit:

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
982	Approach Guardrail	2	Routine	11/12/2015	1 EA	0	1	0	N/A	N/A
			Routine	11/27/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2013-2015] Guardrail system has no twisted ends at NE & SW corners, but due to low speed not required.
[2013-2015] Minor damage to guardrail system but still funtioning.

984	Deck & Approach Drainage	2	Routine	11/12/2015	1 EA	1	0	0	N/A	N/A
			Routine	11/27/2013	1 EA	1	0	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2003-2015] Drains to the west. System is functioning properly.

985	Slopes & Slope Protection	2	Routine	11/12/2015	1 EA	0	1	0	N/A	N/A
			Routine	11/27/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [1988-2015] Bituminous aggregate slopes are loose and being displaced. Minor to moderate deterioration. Another seal application is recommended.

986	Curb & Sidewalk	2	Routine	11/12/2015	1 EA	0	1	0	N/A	N/A
			Routine	11/27/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2015] scrapes on south curb from snowplows.
[2007-2015] Curb has a 2' X 6" major spall on south side near east end.
[2007-2015] Sidewalk has transverse cracking on both sides. Sidewalk has numerous minor cracking.
[2007-2015] There is a 2" drop off at SE corner, 2" drop off at NW corner and 1" drop off at SW corner.
Sidewalks widened 10 FT north, 12 FT south 1985.

988	Miscellaneous Items	2	Routine	11/12/2015	1 EA	0	1	0	N/A	N/A
			Routine	11/27/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [1989-2015] One active RR track below.
[2013-2015] Graffiti is on abutments, girders, pier columns, pier webs and wingwalls.
[2003-2015] Utility pole at NE corner is on roadway side of guardrail.

General Notes: 2015 bridge safety inspection by Dan Bodelson & Brian Essler on 11/12/2015.
2013 bridge safety inspection by B. Wieman and D. Bodelson on 11/27/2013.
2011 bridge safety inspection by B. Wieman and D. Bodelson.
Photos. 2005. 2009 Bridge safety inspection was completed by B. Wieman.
2007 Bridge safety inspection was completed by B. Wieman and B. Essler 8/17/2007.
2005 Bridge safety inspection by Bret Wieman and Dan Bodelson. 8/30/2005.
Photos 2005. Bridge constructed in 1977.

58. Deck NBI: Concrete deck has minor cracking, leaching & scale.

36A. Brdg Railings NBI: Vehicular railings meet current standards.

36B. Transitions NBI: Guardrail transitions meet current standards.

36C. Appr Guardrail NBI: Approach guardrail meets current standards.

Structure Unit:

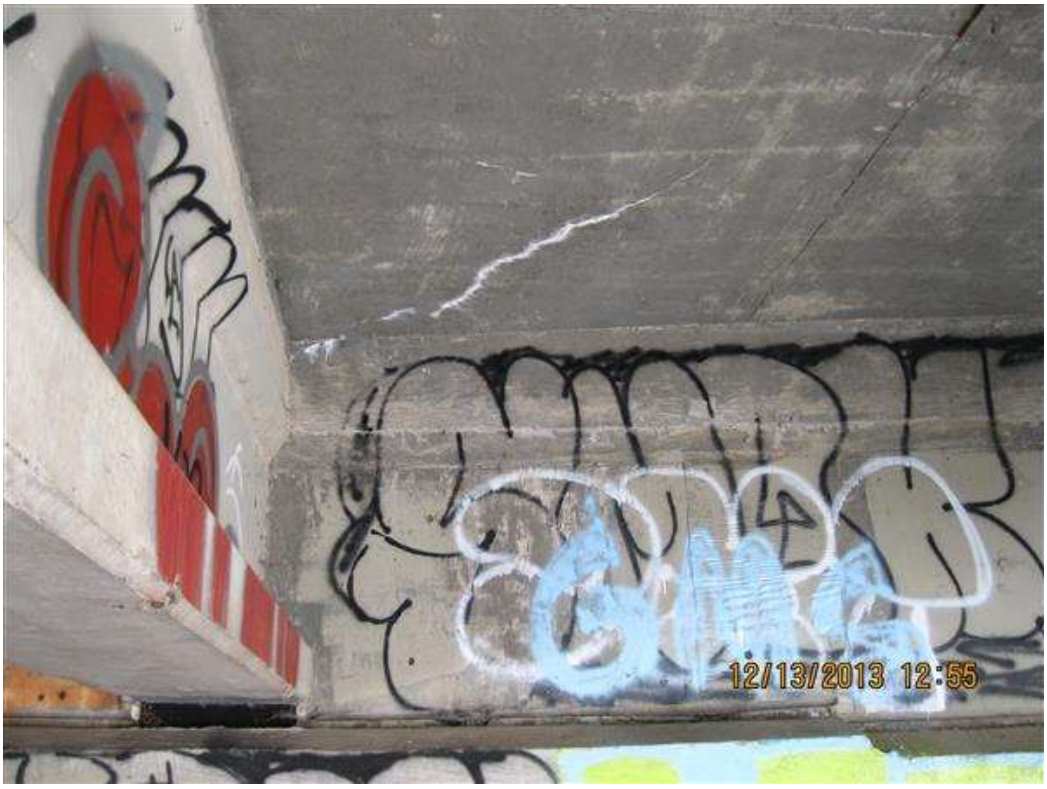
ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5

36D. Appr Guardrail Terminal NBI:	Guardrail terminations meet current standards.
59. Superstructure NBI:	Concrete has minor cracking & spalls.
60. Substructure NBI:	Abutments & Piers have minor cracking & spalls.
61. Channel NBI:	Roadway over BNSF RR.
62. Culvert NBI:	Roadway over BNSF RR.
71. Waterway Adeq NBI:	Roadway over BNSF RR.
72. Appr Roadway Alignment NBI:	No speed reduction required.
Inventory Notes:	

Dan Bodelson
Inspector's Signature

Nicklaus Fischer
Reviewer's Signature

Pictures



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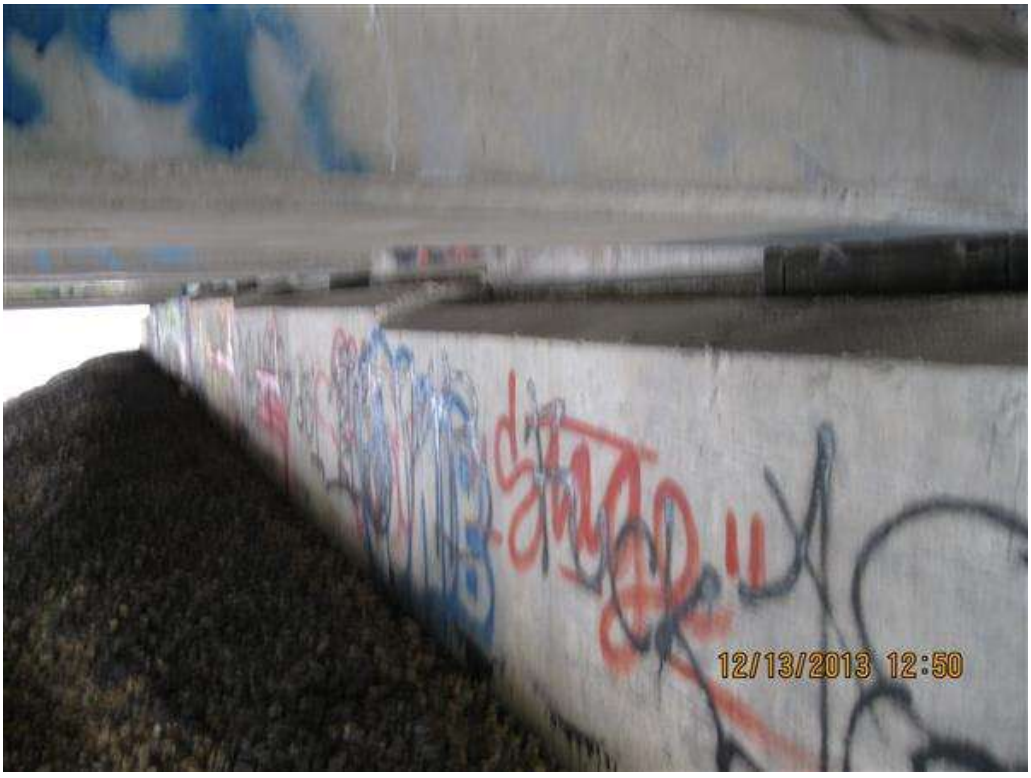
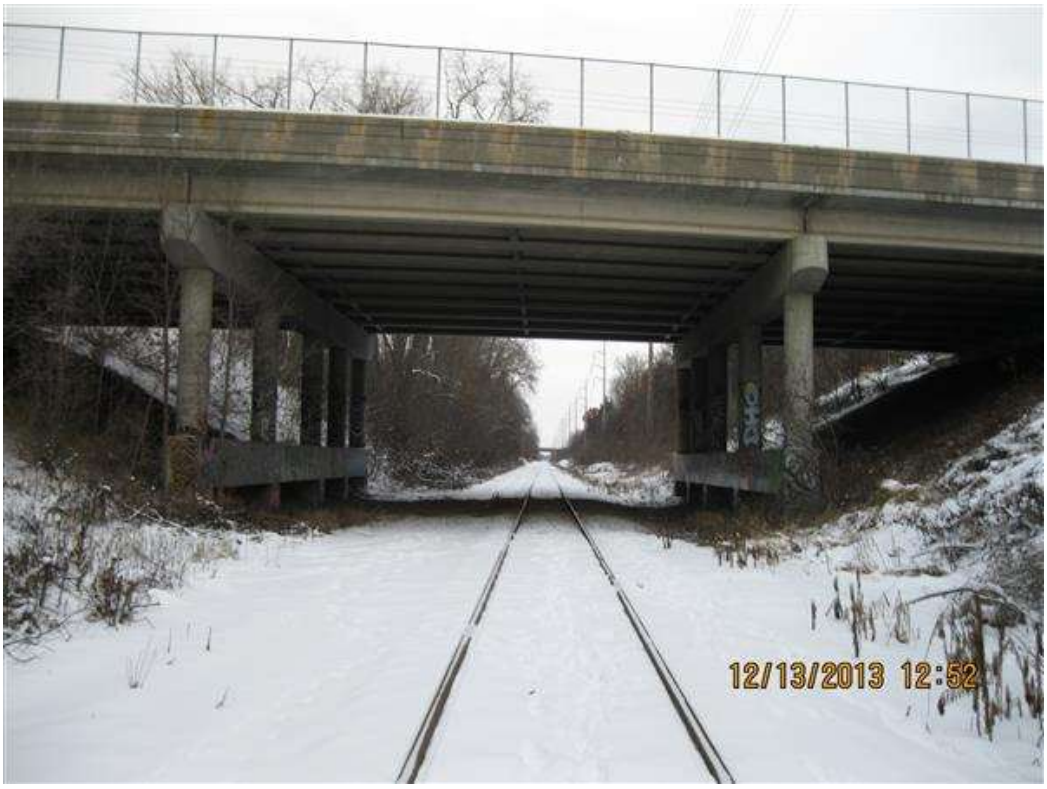


Photo 2 -

Pictures



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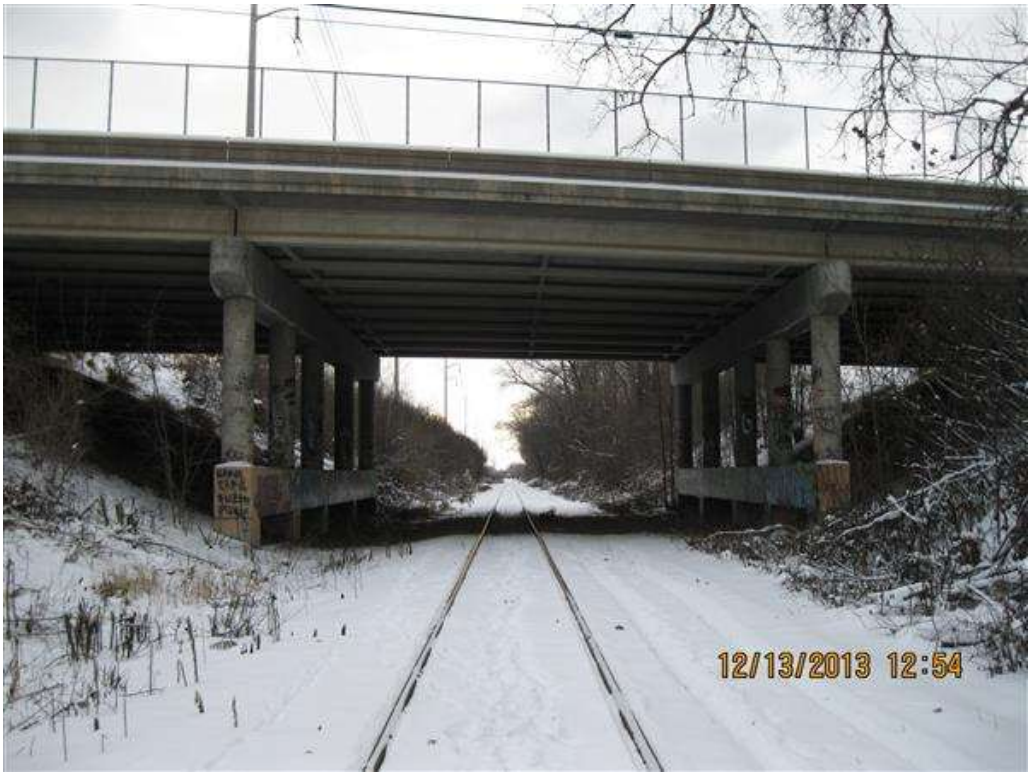
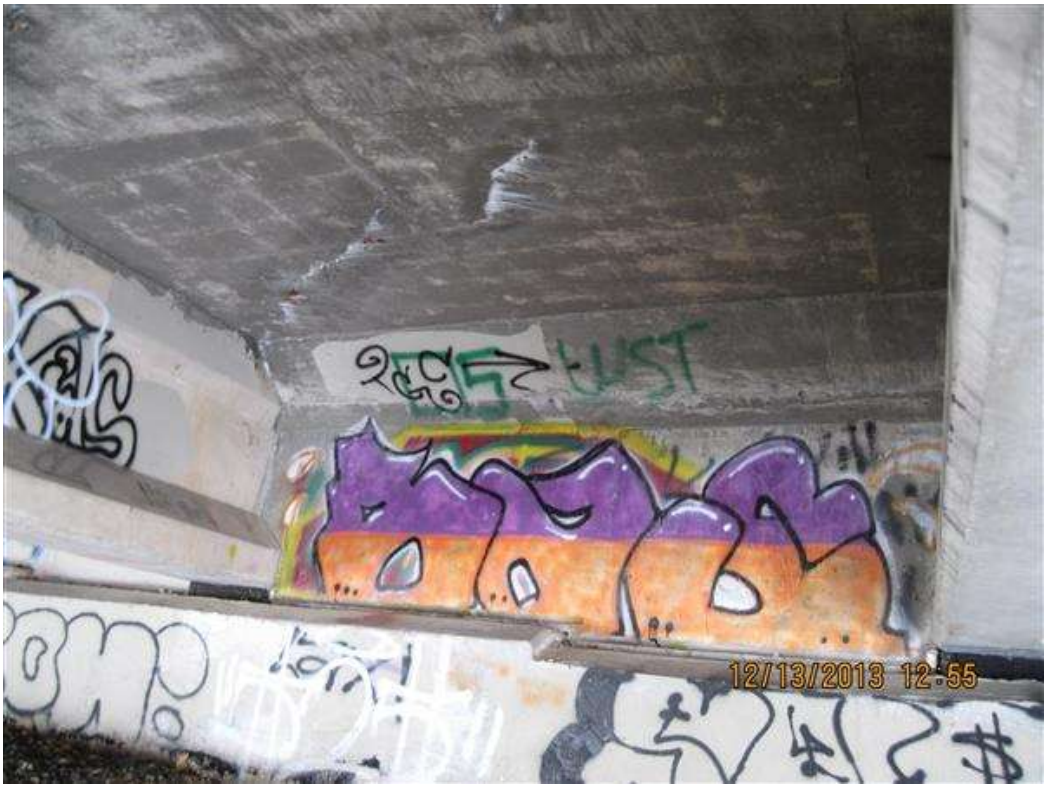


Photo 4 -

Pictures



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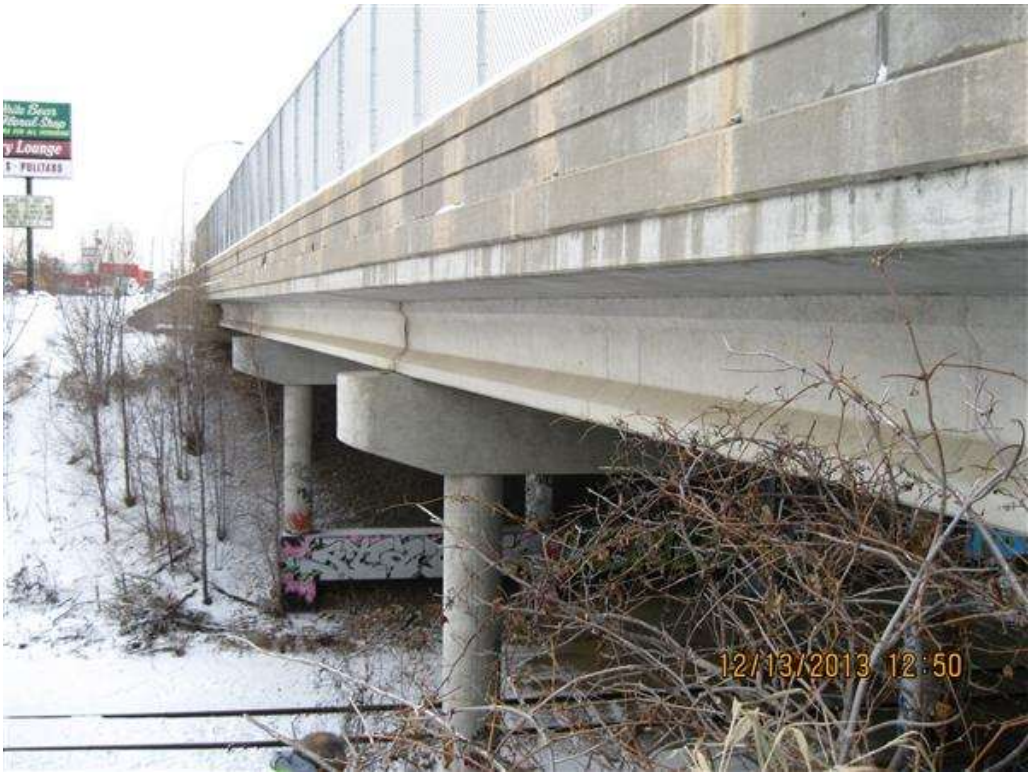

Photo 6 -

Pictures

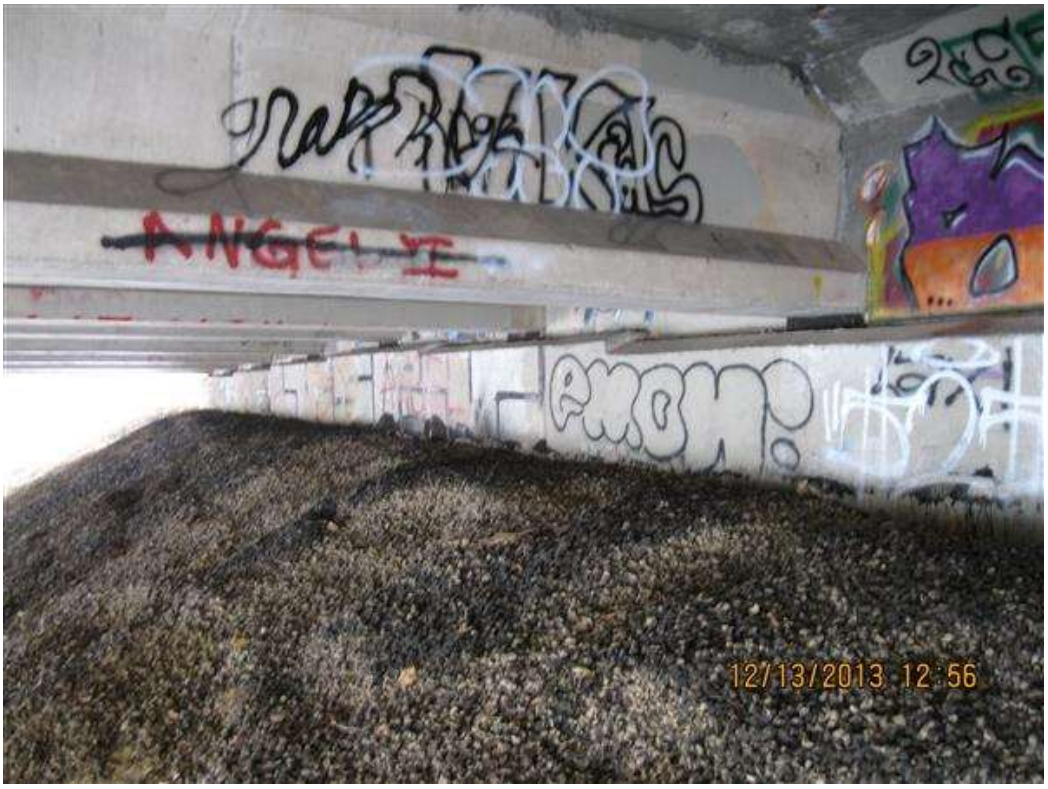

Photo 7 -

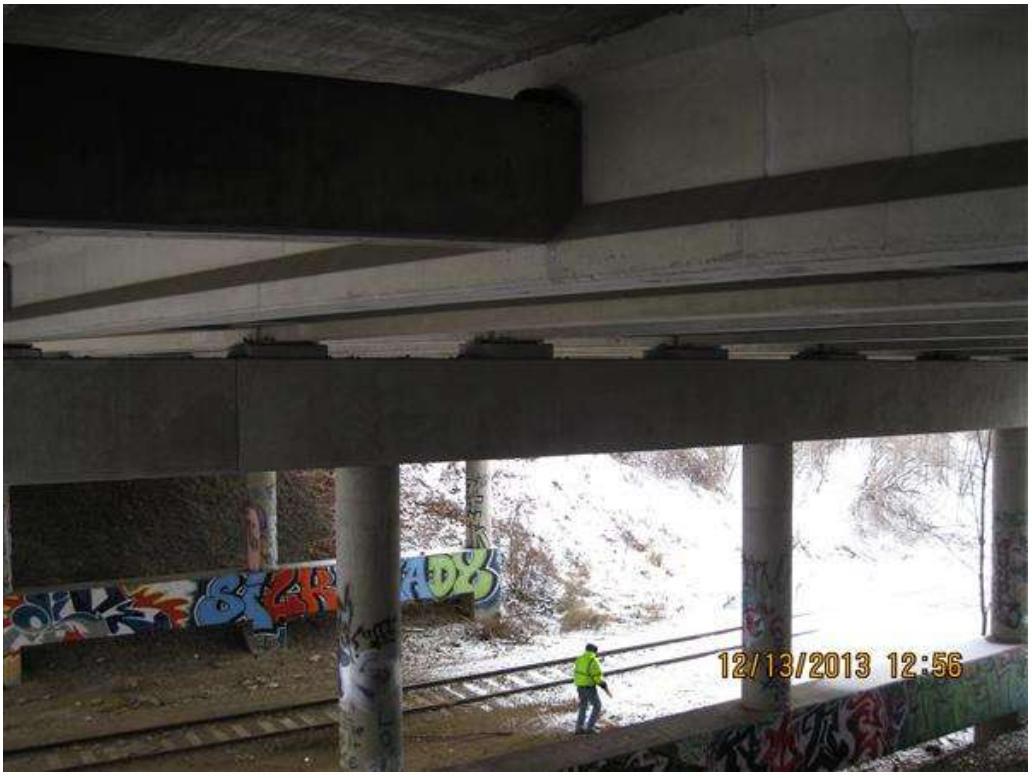

Photo 8 -

1. crack under bridge.JPG

2. east bearings.JPG

3. looking north.JPG

4. looking south.JPG

5. more cracks under bridge.JPG

6. south beams.JPG

7. west bearings.JPG

8. west pier.JPG

Culvert

Bridge No.: 62079

Culvert

Item	*Description*	*Condition*	*Comments*
Culvert Overall:	**NBI Item 62**	N	Roadway over BNSF RR.

MnDOT Scour Code: A - NON WATERWAY

Waterway Inspection

Item No.	Yes, No, NA or Not Visible	Description
1.		Is there a significant build-up of debris?
2.		Is there erosion of the embankment around the headwalls?
3.		Is there any indication of cracking or settlement of the culvert barrel or headwalls?
4.		Is there shifting of the channel alignment or erosion of the stream banks? Also are there cracks in the soil of the banks parallel to the stream?
5.		Do scour measurements indicate that the streambed is below the bottom of the cutoff walls at the ends of the culvert?
6.		Is there evidence of distress in the roadway or approaches such as cracks in the pavement and sags in the guardrail or roadway? Also, is there cracking, erosion, or failure of the side slopes at or adjacent to the culvert?
7.		Is there an indication of "piping" of water along the outside of the culvert such as cavities adjacent to the barrel?
8.		Is the culvert without a bottom and scour measurements indicate that the streambed is below the plan streambed elevations?
9.		Has the riprap or other scour protection been damaged or otherwise made ineffective?
10.		If the culvert was designed to be buried (fill inside the culvert), is the material still in the barrel?

Notes:

- Streambed sounding data is to be documented.

- Soundings of the streambed should be done at each end of the culvert. If Items #5 or #8 are "Yes", then a streambed profile of the scoured area should be done.

- If "Yes" is the answer to any items on the checklist, notify the Program Administrator for further instructions.

Comments:

Completed On _____ By _____

Channel

Bridge No.: 62079

Channel

Item	*Description*	*Condition*	*Comments*
Channel Overall:	**NBI Item 61**	N	Roadway over BNSF RR.

Bank Protection/Revetment

Item	*Description*	*Condition*	*Comments*
Upstream Bank Protection:			
Downstream Bank Protection:			
Bridge Revetment:			
MnDOT Scour Code:	A - NON WATERWAY		

Underwater Inspection

Underwater Inspection By Divers:

No. of Piers To Be Inspected:

Waterway Characteristics

Reference Point:		**High Water Elev.:**		**Current Water Elev.:**	
Pile Tip Elev.:		**Low Water Elev.:**		**Current Streambed Elev.:**	
		Scour Hole Elev.:		**Current Scour Hole Elev.:**	

Waterway Inspection: (Not applicable for culverts)

Item No.	Yes, No, NA or Not Visible	Description
1.		Is there a significant build-up of debris?
2.		Is there a change in the horizontal alignment of the handrail or structure members such as beams?
3.		Is there any indication of vertical movement of the superstructure?
4.		Is there shifting of the channel alignment or erosion of the stream banks? Also are there cracks in the soil of the banks parallel to the stream?
5.		Is there a significant change in the alignment of hte exterior bearings?
6.		Are there cracks or other signs of distress in the approach pavement?
7.		Is the water currently on the superstructure?
8.		Are the slopes unstable?
9.		Do scour measurements indicate: (place a check by all that apply.)
		☐ A. that the streamed is two or more feet below the bottom of pier footings which are supported on piles?
		☐ B. scour below the bottom of spread footings?
		☐ C. scour below the bottom of high abutment footings?
		☐ D. that the streambed has scoured five feet or more below the original streambed elevation at pier bents?

10. _____ Have the scour countermeasures been damaged or otherwise made ineffective?

Notes:

- Streambed sounding data is to be documented.

- Per MnDOT Bridge Inspection Manual Section 2.2.5, at bridges that require x-sections, take channel x-sections, along the upstream and/or downstream face of the bridge.

- If "Yes" is the answer to any items on the checklist, notify the Program Administrator for further instructions.

Comments:

Completed On _____ By _____

Scour POA

Bridge No.: 62079

Scour POA

1. Is POA on File? _____
2. Date of most recent POA: _____
3. Here is a link to MnDOT's Bridge Scour website for other resources:
   - *http://www.dot.state.mn.us/bridge/hydraulics/scour.html*
   - The Scour POA should be kept in the bridge file and/or uploaded to SIMS using the "Inspection Files" tab.

Implementation

Scour POAs are required to be implemented by FHWA.

1. Is this POA being implemented? _____

Channel Section

Upstream

Custom Label	Location	Elevation

Downstream

Custom Label	Location	Elevation

Distance Measured From:

Elev. of Ref. Pt:

Depth to Water Surface:

WS Elev:

Vertical Datum:

Comments:

Distance Measured From:

Elev. of Ref. Pt:

Depth to Water Surface:

WS Elev:

Vertical Datum:

Maintenance

Element	Source Code	Work Code	Description	P/R	Priority	Work Order #	Year Due	Last Viewed	Entered	Start Date	Completed

BRIDGE STRUCTURAL ASSESSMENT REPORT

PURPOSE:

This report is a structural assessment of the structure and its ability to carry loads based on conditions identified in the attached bridge inspection report. The assessment is only a cursory review intended to provide guidance as to the relative hazards for structural conditions and deficiencies identified. This report is mandatory for all fracture critical bridges and is completed by the MnDOT Bridge Office upon receipt of the 7 Day FC Report; however, it is an OPTIONAL tool for agencies to utilize at their discretion for all other inspection types.

BRIDGE NO.: 62079

BRIDGE OWNER: County Highway Agency

DATE INSPECTED: 11/12/2015

STRUCTURE TYPE: Prestressed Concrete Stringer/Multi-beam or Girder

FACILITY CARRIED: CO Road E (CSAH 15

FEATURES INTERSECTED: BNSF RR

TYPE OF INSPECTION: ☑ ROUTINE
☐ FRACTURE CRITICAL
☐ PINNED ASSEMBLY:
☐ SPECIAL:
☐ DAMAGE:
☐ OTHER:

Check all that apply:

Redundancy: ☐ Load Path ☐ Structural ☐ Internal

Connection Type: ☐ Riveted ☐ Bolted ☐ Welded ☐ Other:

1. Was a critical finding identified during this inspection or upon structural review? ☐ Yes ☐ No

   a) If selected "**Yes**" above, state briefly the finding(s):

2. If a critical finding was identified, what is the current status? ☐ Pending ☐ Resolved ☐ N/A

   a) Briefly state actions taken:

3. Does the condition of any bridge component indicate impaired function? Examples of bridge components with impaired function include elements that are: frozen or immoveable, out-of-plumb or misaligned, distorted or structurally deformed, excessively deteriorated, cracked, broken, eroded or scoured. ☐ Yes ☐ No

a) If selected "**Yes**" above, state briefly the component(s) and condition(s):

4. Does the overall condition of the bridge, or any of its components mentioned in Question 3, suggest the need for detailed structural analysis and/or a revised load rating? ☐ Yes ☐ No

   a) If selected "**Yes**", state the reason for this recommendation and indicate a proposed timeframe in accordance with State of Minnesota Rule 8810.9500 (Subpart 2):

5. Based on the structural assessment of these findings, recommendations include:

   ☐ Repair/Maintenance ☐ Monitoring Plan
   ☐ Other ☐ Increased Inspection Frequency

   Explain recommended actions:

6. Other comments:

Bridge Office Reviewer