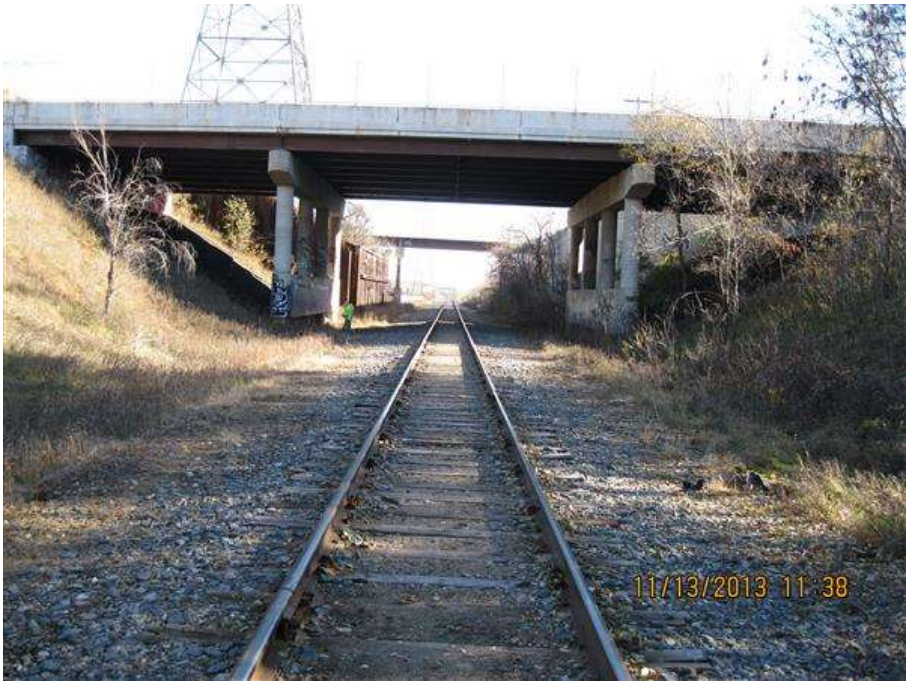
2015 ROUTINE
BRIDGE INSPECTION REPORT



BRIDGE # 62001
RICE ST over BNSF RR

DISTRICT: Metro **COUNTY: Ramsey** **CITY/TOWNSHIP: Little Canada**

Date(s) of Inspection: 11/05/2015
Equipment Used:

Owner: County Highway Agency

Inspected By: Essler, Brian

Report Written By: Brian Essler
Report Reviewed By: Nicklaus Fischer
Final Report Date: 01/07/2016

MnDOT Bridge Office
3485 Hadley Avenue North
Oakdale, MN 55128

Table of Contents

MnDOT Structure Inventory Report

Bridge ID: 62001 RICE ST **over** BNSF RR **Date:** 01/07/2016

GENERAL

Agency Br. No.
District Metro
Maint. Area **Crew**
County 062 - Ramsey
City Little Canada
Township
Desc. Loc. 0.6 MI S OF JCT TH 694
Sect., Twp., Range 6 - 029N - 22W
Latitude **Deg** 45 **Min** 2 **Sec** 8.98
Longitude **Deg** 93 **Min** 6 **Sec** 22.38
Custodian 02 - County Highway Agency
Owner 02 - County Highway Agency
BMU Agreement
Year Built 1986
MN Year Reconstructed
FHWA Year Reconstructed
MN Temporary Status
Bridge Plan Location 1 - CENTRAL
Date Opened to Traffic 9/1/1987
On-Off System 1 - ON
Legislative District 54B

STRUCTURE

Service On 5 - Highway-pedestrian
Service Under 2 - Railroad
Main Span Type
4 - Steel Continuous 01 - Beam Span
Main Span Detail
Appr. Span Type
Appr. Span Detail
Skew 6 L
Culvert Type
Barrel Length ft.
Cantilever ID

NUMBER OF SPANS

MAIN: 3 **APPR:** 0 **TOTAL:** 3
Main Span Length 50.0 ft.
Structure Length 134.5 ft.
Deck Width (Out-to-Out) 71.3 ft.
Deck Material 1 - Concrete Cast-in-Place
Wear Surf Type 4 - Low Slump Concrete
Wear Surf Install Year 1986
Wear Course/Fill Depth 0.17 ft.
Deck Membrane 0 - None
Deck Rebars 1 - Epoxy Coated Reinforcing
Deck Rebars Install Year 1986
Structure Area (Out-to-Out) 9590 sq. ft.
Roadway Area (Curb-to-Curb) 7664 sq. ft.
Sidewalk Width **Lt** 6.00 ft. **Rt** 6.00 ft.
Curb Height **Lt** 0.83 ft. **Rt** 0.83 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** 49
Roadway Name or Description
RICE ST
Level of Service 1 - MAINLINE
Roadway Type 2 - 2-way traffic
Control Section (TH Only)
Reference Point 005+00.513
Detour Length 3.0 mi
Lanes **On** 2 **Under** 0
ADT 17928 **Year** 2008
HCADT 717 **ADTT** 4 **%**
Functional Class 16 - Urban - Minor Arterial

RDWY DIMENSIONS

If Divided	NB-EB	SB-WB
Roadway Width	57.00 ft.	ft.
Vertical Clearance	ft.	ft.
Max. Vert. Clear.	ft.	ft.
Horizontal Clear.	56.9 ft.	ft.
Lateral Clearance	ft.	ft.

Appr. Surface Width 54.0 ft.
Bridge Roadway Width 57.0 ft.
Median Width On Bridge ft.

MISC. BRIDGE DATA

Structure Flared 0 - No flare
Parallel Structure N - No parallel structure
Field Conn. ID 4 - Bolted
Abutment Foundation 1 - CONC
(Material/Type) 0 - UNKNOWN
Pier Foundation 1 - CONC
(Material/Type) 0 - UNKNOWN
Historic Status 5 - Not eligible

PAINT

Year Painted 1986
Unsound Paint % 10
Painted Area 9080 sq. ft.
Primer Type D - Organic Zinc - 3309
Finish Type G - Chorinated Rubber Alum

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 94.8
Routine Inspection Date 11/05/2015
Routine Inspection Frequency 24
Inspector Name County, Ramsey
Status A - Open

NBI CONDITION RATINGS

Deck 6 - Satisfactory Condition
Unsound Deck %
Superstructure 6 - Satisfactory Condition
Substructure 7 - Good Condition
Channel N - Not Applicable
Culvert N - Not Applicable

NBI APPRAISAL RATINGS

Structure Evaluation 6
Deck Geometry 9
Underclearances 9
Water Adequacy N - Not Applicable
Approach Alignment 7 - Better than present minir

SAFETY FEATURES

Bridge Railing 1 - MEETS STANDARDS
GR Transition 0 - SUBSTANDARD
Appr. Guardrail 0 - SUBSTANDARD
GR Termini N - NOT REQUIRED

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 33.6
Inventory Rating 1 - LF (LF) HS 20.2
Posting VEH: **SEMI:** **DBL:**
Rating Date 10/25/2013

MnDOT Permit Codes

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

MnDOT Structure Inventory Report

Additional Roadways

Bridge ID: 62001 RICE ST over BNSF RR **Date:** 01/07/2016

MnDOT BRIDGE INSPECTION REPORT

01/07/2016

Inspector: County, Ramsey

BRIDGE 62001 RICE ST OVER BNSF RR **ROUTINE INSP. DATE: 11/05/2015**

County: Ramsey
City: Little Canada
Township:
Section: 6 Township: 029N Range: 22W
Span Type: 4 - Steel Continuous 02 - Stringer/Multi-beam or Girder
List:
NBI Deck: 6 Super: 6 Sub: 7 Chan: N

Location: 0.6 MI S OF JCT TH 694
Route: 04 - CSAH 49 Ref. Pt.: 005+00.513
Control Section:
Maint. Area:
Local Agency Bridge Nbr.:
Culv: N
Open, Posted, Closed: A - Open
MN Scour Code: A - NON WATERWAY

Length: 134.5 ft.
Deck Width: 71.3 ft.
Rdwy. Area/ Pct. Unsnd: 7664 sq. ft. / %
Paint Area/ Pct. Unsnd: 9080 sq. ft. / 10%
Culvert: N/A
Postings:

Appraisal Ratings - Approach: 7 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 94.8

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
107	Painted Steel Girder or Beam	2	Routine	11/05/2015	1073 LF	805	268	0	0	0
			Routine	11/14/2013	1073 LF	805	268	0	0	0

☐ Requires Monitoring ☐ Monitored

Notes: Rust on bottom flange NE corner at abutment 2015
There is 25% in condition 2 2005-2015.
Minor paint failure on fascia 1999-2015.
24" deep rolled beams. Organic Zinc/Chlorinated Rubber Aluminum paint system 1987.

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
205	Reinforced Concrete Column	2	Routine	11/05/2015	8 EA	0	8	0	0	N/A
			Routine	11/14/2013	8 EA	0	8	0	0	N/A

☐ Requires Monitoring ☐ Monitored

Notes: There were consolidation issues due to construction procedures 2007-2015.
There is evidence of corrosion at the column 1 2005-2015.
Superficial hairline cracks with occasional spalls 2003-2015.
Columns have RR crash struts.

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
215	Reinforced Concrete Abutment	2	Routine	11/05/2015	144 LF	123	22	0	0	N/A
			Routine	11/14/2013	144 LF	123	22	0	0	N/A

☐ Requires Monitoring ☐ Monitored

Notes: There are 2 spalls with corrosion @ SW corner back wall 2015.
There is a 2' moderate crack on the face of the north abutment between girders 4 & 5 2015.
Moderate crack in back wall between beams 5 & 6 by construction joint 2013-2015
There is minor corrosion NW corner @ backwall 2007-2015.
There are 4 minor vertical cracks & minor deterioration of 2 expansion joints @ south abutment 2003-2015.
There are 2 -6" areas of delamination with corrosion @ SW corner backwall 2003-2013.
The north abutment has minor deterioration of 2 expansion joints @ bridge seat and backwall 2003-2015.
There are minor horizontal and vertical cracking @ backwall north side 2003-2015.
The north abutment has 6 minor - moderate vertical cracks 2009-2015.
15% is condition state 2 2009-2011.
10% is condition state 2 2005-2007.

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
234	Reinforced Concrete Pier Cap	2	Routine	11/05/2015	144 LF	0	144	0	0	N/A
			Routine	11/14/2013	144 LF	0	144	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: There is evidence of corrosion and cracking at column 8 2011-2015.
There is minor cracking @ column 5 2007-2015.
Minor cracking with occasional spalls 2003-2015.
There were consolidation issues due to construction procedures 2007.

300	Strip Seal Deck Joint	2	Routine	11/05/2015	141 LF	0	141	0	N/A	N/A
			Routine	11/14/2013	141 LF	0	141	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: 100% in condition state 2 -2011-2015.
Minor corrosion of steel 2005-2015.
Strip seal exp. joints have leakage at both ends of bridge. 2005-2015
Needs to be flushed & cleaned for further inspection 2003-2015.
Previous inspections - Leakage at gutter line 1988. Also leak at centerline south side 2001.
Strip seals (Type "H") at abutments.

301	Poured Deck Joint	2	Routine	11/05/2015	141 LF	0	141	0	N/A	N/A
			Routine	11/14/2013	141 LF	0	141	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: Moderate leakage. Should be replaced @ both ends 2007-2015.
Minor leakage. Adhesion & cohesion failures are present 2003-2005.

310	Elastomeric (Expansion) Bearing	2	Routine	11/05/2015	20 EA	19	1	0	N/A	N/A
			Routine	11/14/2013	20 EA	19	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: Minor evidence of corrosion exists at the SW corner 2005-2015.
No evidence of deterioration 2003.

~~311~~	~~Expansion Bearing~~	~~2~~	~~Routine~~	~~11/05/2015~~	~~20 EA~~	~~19~~	~~1~~	~~0~~	~~N/A~~	~~N/A~~
			Routine	11/14/2013	20 EA	19	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: Minor evidence of corrosion exists at the SW corner 2005-2013.
Little evidence of deterioration exists 2003.

313	Fixed Bearing	2	Routine	11/05/2015	12 EA	12	0	0	N/A	N/A
			Routine	11/14/2013	12 EA	12	0	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: Little evidence of deterioration exists 2003-2015.
Interior pier bearings (both piers) are fixed.

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
321	Concrete Approach Slab-Concrete Wearing Surface	2	Routine	11/05/2015	2 EA	0	2	0	0	N/A
			Routine	11/14/2013	2 EA	0	2	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: There is longitudinal cracking at expansion joints 2005-2015.
Minor - moderate spalls present on both approaches 2003-2015.
New bituminous mill & overlay in 2009. There is still traffic impact on the north approach slab due to bituminous match 2009.
[1993-2007] Bituminous roadway is low at approaches.

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	11/05/2015	269 LF	0	269	0	N/A	N/A
			Routine	11/14/2013	269 LF	0	269	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: There are numerous moderate size cracks & spalls with evidence of corrosion - both sides 2007-2015.
100% in condition 2 2005-2015.
SW corner @ post has been patched but is cracking 2003-2015.
Fence on the west side has been pushed out by plows at two locations 2011.
Minor but numerous cracks and spalls 2001-2007.
SW corner post has 1 SF spall 1992-2003.
Rail Type: Code #21.

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	11/05/2015	1 EA	0	1	0	0	N/A
			Routine	11/14/2013	1 EA	0	1	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: There are numerous transverse cracking extending inward from the sidewalk from both sides 2009-2015.
There is a moderate cracking all the way across @ mid span 2009-2015.
There is some minor - moderate transverse cracking @ mid span 2007.
Minor cracking 2003-2005.
SBL: repaired area @ center of bridge 1992.

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	11/05/2015	1 EA	0	1	0	0	0
			Routine	11/14/2013	1 EA	0	1	0	0	0

☐Requires Monitoring ☐Monitored

Notes: There is a 6" X 6" spall at the north abutment at beam 8 2015
there is a 3' X 1' spall between beam 5 & 6 and a 2' X 2' spall with exposed rebar between beam 1 & 2 above the tracks 2015
There is delamination @ center of bridge (5' x 2') 2013-2015
There is a spall with exposed rebar between beams 7 & 8 above tracks (2' x 1') 2013-2015
There are 2 transverse cracks @ mid span entire width. Some delamination is beginning 2011 - 2015.
There are numerous transverse cracking extending inward from both sides 2009-2015.
South abut. - pier has 80 LF of cracks, between piers 225 LF of cracks and from pier - no. abut. 64 LF of cracks for a total of 369 LF of transverse cracks with leaching & efflorescence 2011 - 2015.
There is a transverse crack @ mid span entire width 2007-2009.
Previous inspections - There are 3 cracks west side & 5 cracks east side 2007.
Transverse cracking with efflorescence and minor rusting. Mostly at center bridge entire width 2001.

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	11/05/2015	9591 SF	0	9591	0	0	0
			Routine	11/14/2013	9591 SF	0	9591	0	0	0

☐Requires Monitoring ☐Monitored

Notes: There is a 1' X6" spall in the SB lane 2015.
There is transverse cracking throughout deck 2011-2015.
There are numerous transverse extending into the deck from the sidewalk on both sides 2009-2015.
There is a moderate size transverse crack the full width @ mid span 2009-2015.
There is a 12' moderate size transverse crack @ northbound mid span east side 2007.
There is a 6' minor size transverse crack 4' north of the mid span crack 2007.
Minor longitudinal & transverse cracking 2002-2005.

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	11/05/2015	2 EA	2	0	0	0	N/A
			Routine	11/14/2013						

☐Requires Monitoring ☐Monitored

Notes: Railroad struts along columns 2015

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	1	Routine	11/05/2015	4 EA	0	4	0	0	N/A
			Routine	11/14/2013	4 EA	0	4	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: There is moderate spalling and cracking w/evidence of corrosion at NE wingwall 2011 - 2015.
There is minor vertical cracking @ NW wing wall 2011 - 2015.
There is spalling @ SE wingwall & NW wingwall 2007-2015.
SW abutment wing has minor cracking with occasional spalls and evidence of corrosion 2002-2015.
Abutment wings have minor cracking with occasional spalls and evidence of corrosion 2003-2005.

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	11/05/2015	1 EA	1	0	N/A	N/A	N/A
			Routine	11/14/2013	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	11/05/2015	1 EA	1	0	0	0	0
			Routine	11/14/2013	1 EA	1	0	0	0	0

☐Requires Monitoring ☐Monitored

Notes: Horizontal clearance signs are in place 2003-2015.

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	11/05/2015	1 EA	1	0	0	N/A	N/A
			Routine	11/14/2013	1 EA	1	0	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: There is no crash attenuator for the guardrail system 2009-2015.
Guardrail is in place at the NW corner 2003-2015.

984	Deck & Approach Drainage	2	Routine	11/05/2015	1 EA	0	1	0	N/A	N/A
			Routine	11/14/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: There is some standing water @ NE approach panel 2009-2015.
No drainage problems 2003-2007.

985	Slopes & Slope Protection	2	Routine	11/05/2015	1 EA	0	1	0	N/A	N/A
			Routine	11/14/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: Bituminous aggregate slopes. Some movement of aggregate. Moderate deterioration 2003-2015.

986	Curb & Sidewalk	2	Routine	11/05/2015	1 EA	0	1	0	N/A	N/A
			Routine	11/14/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: There is a spall@ expansion joint NE corner 2015.
Scrapes from snow plow on east & west sides 2013-2015.
There are numerous moderate transverse cracks & spalls both sides 2009-2015.
Minor cracking with spalls present 2003-2007. Cracking and settlement at sidewalk SW corner 2001-2015.
There is some delamination @ expansion joint NE corner 2007-2013.
North approach: right curb has 1 LF of spall (0.8' deep) 1992.

988	Miscellaneous Items	2	Routine	11/05/2015	1 EA	0	1	0	N/A	N/A
			Routine	11/14/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: Utility line conduit located between girders 7 & 8 2015.
Graffiti on abutments, pier struts, columns, SE wing wall and girders 2003-2015.

General Notes: 2015 Bridge safety inspection was conducted by Dan Bodelson and Brian Essler on 11/5/2015.
2013 Bridge safety inspection was conducted by Brian Essler and Dan Bodelson on 11/14/2013.
2011 Bridge safety inspection was conducted by B. Wieman and D. Bodelson on 11/8/2011.
BRIDGE #62001, YEAR 2000. Turnback to Ramsey County. Railroad Bridge Constructed in 1986-87. Ramsey County has ownership & responsibility.
Bridge #62001, Railroad bridge constructed 1986-87. Mn/DOT ownership & responsibility. Photos 1999.
188) One active RR track below. 6'' gas main in east bay. [1999] Extensive graffiti below bridge.

[2009] Bridge safety inspection was completed by B. Wieman 10/23/2009.
2007 Bridge safety inspection was completed by B. Wieman & B. Essler 8/20/2007.
2005 Bridge safety inspection was completed by Bret Wieman. 9/26/2005.
125) 3 lanes (including center turn lane). Low slump overlay (only top mat has epoxy rebar) 1987. Chaining found no delamination 1993. Underside of deck has 300 LF of transverse leaching cracks (some rust stains) - mostly in center of center span (photo in 1999). 186) [1988] Sidewalk has 60 LF of transverse cracks. 188) One active RR track below. 6'' gas main in east bay. [1999] Extensive graffiti below bridge.
*BRIDGE #62001, YEAR 2000. Turnback to Ramsey County. Railroad Bridge Constructed in 1986-87. Ramsey County has

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

	ownership & responsibility. Bridge #62001, Railroad bridge constructed 1986-87.
58. Deck NBI:	Moderate cracking & spalls.
36A. Brdg Railings NBI:	Rail Type: Code #21.
36B. Transitions NBI:	
36C. Appr Guardrail NBI:	
36D. Appr Guardrail Terminal NBI:	
59. Superstructure NBI:	Corrosion on bottom flange fascia beams & at bearings.
60. Substructure NBI:	Minor cracking. Isolated delamination & spalls.
61. Channel NBI:	Not over water
62. Culvert NBI:	Bridge
71. Waterway Adeq NBI:	Not over water
72. Appr Roadway Alignment NBI:	Minor sight distance problem due to vertical curve
Inventory Notes:	

Brian Essler
Inspector's Signature

Nicklaus Fischer
Reviewer's Signature

Pictures

Photo 1 -

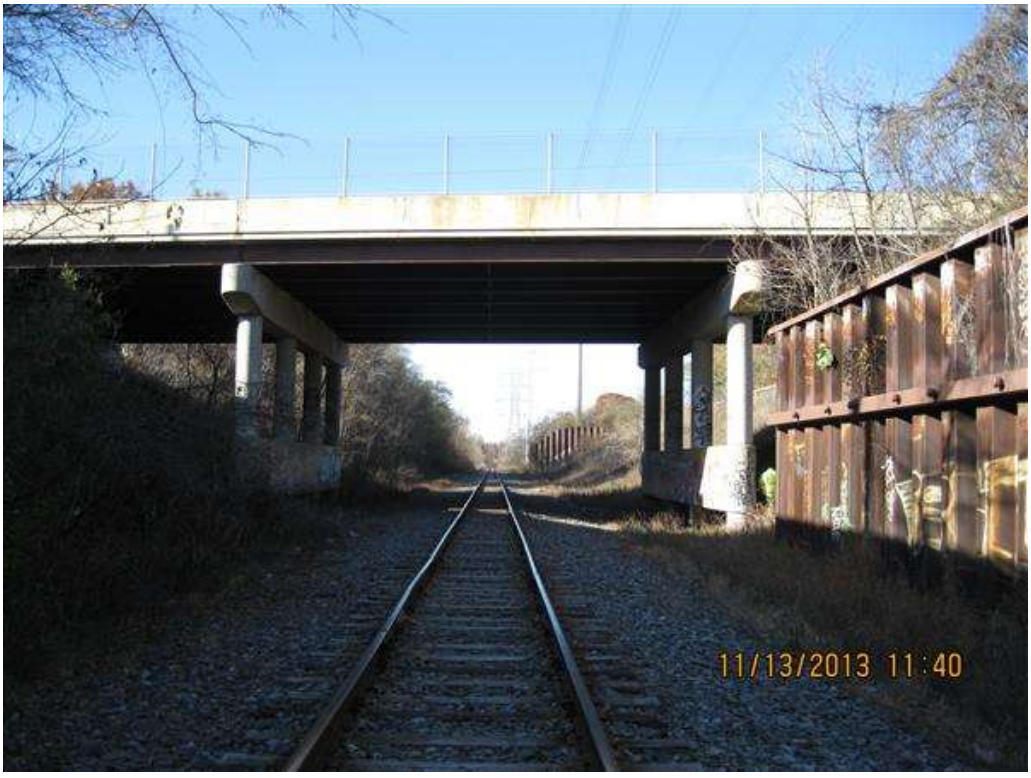
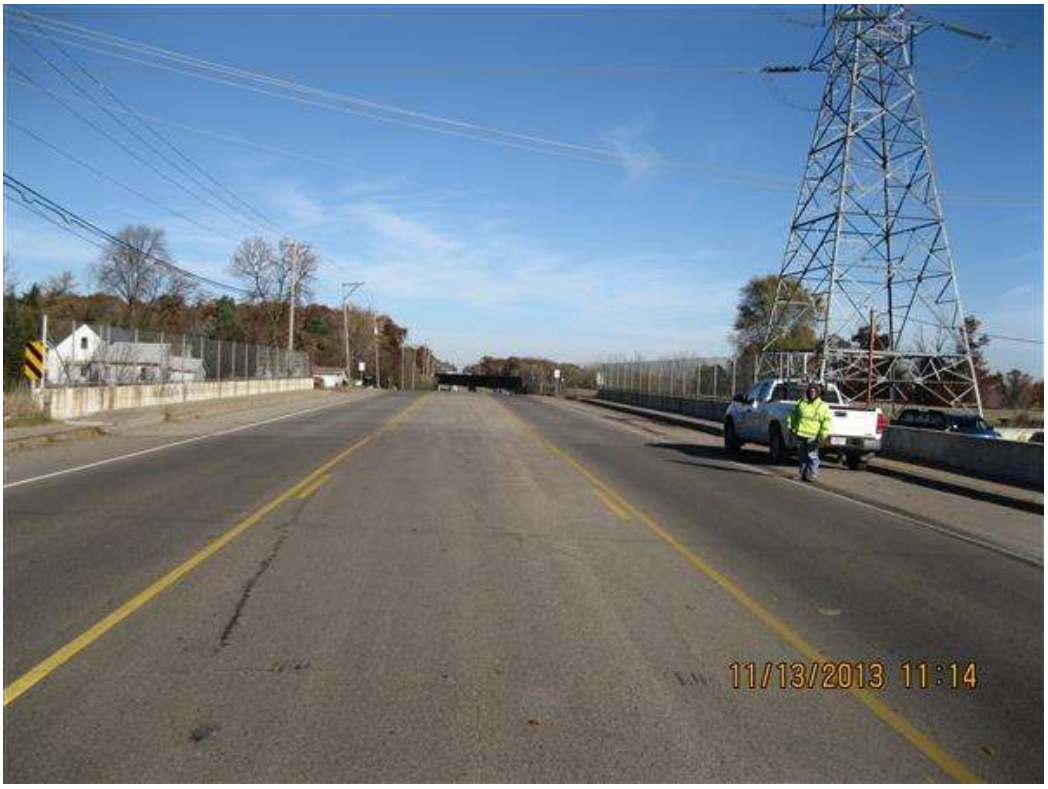


Photo 2 -

Pictures



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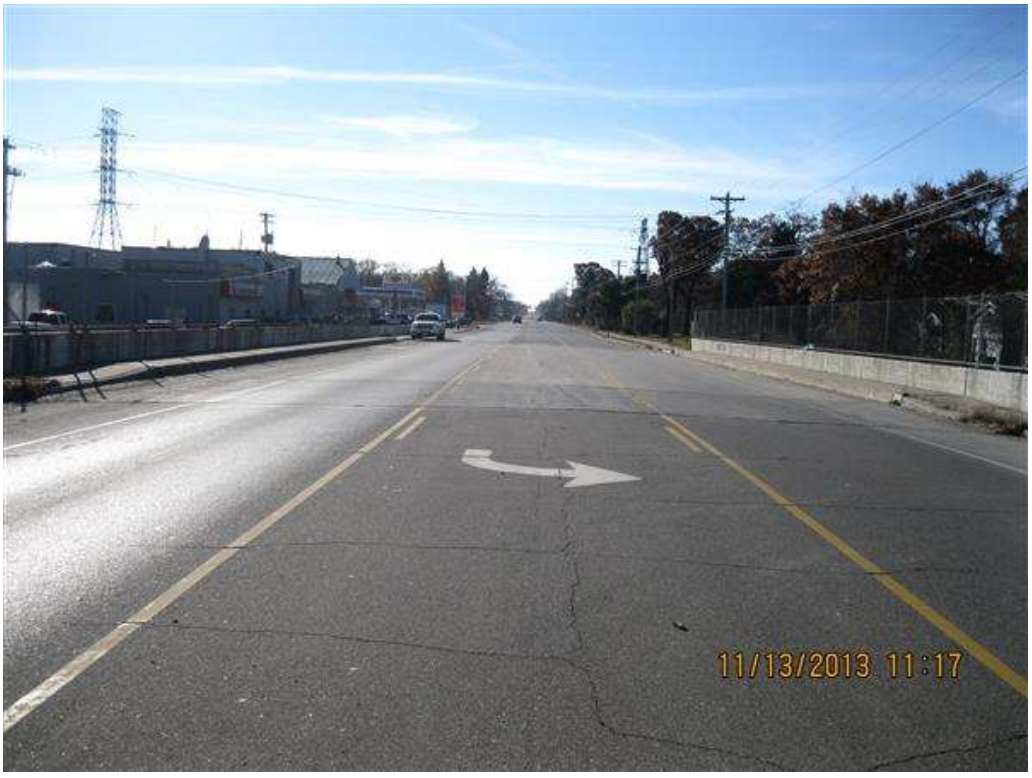
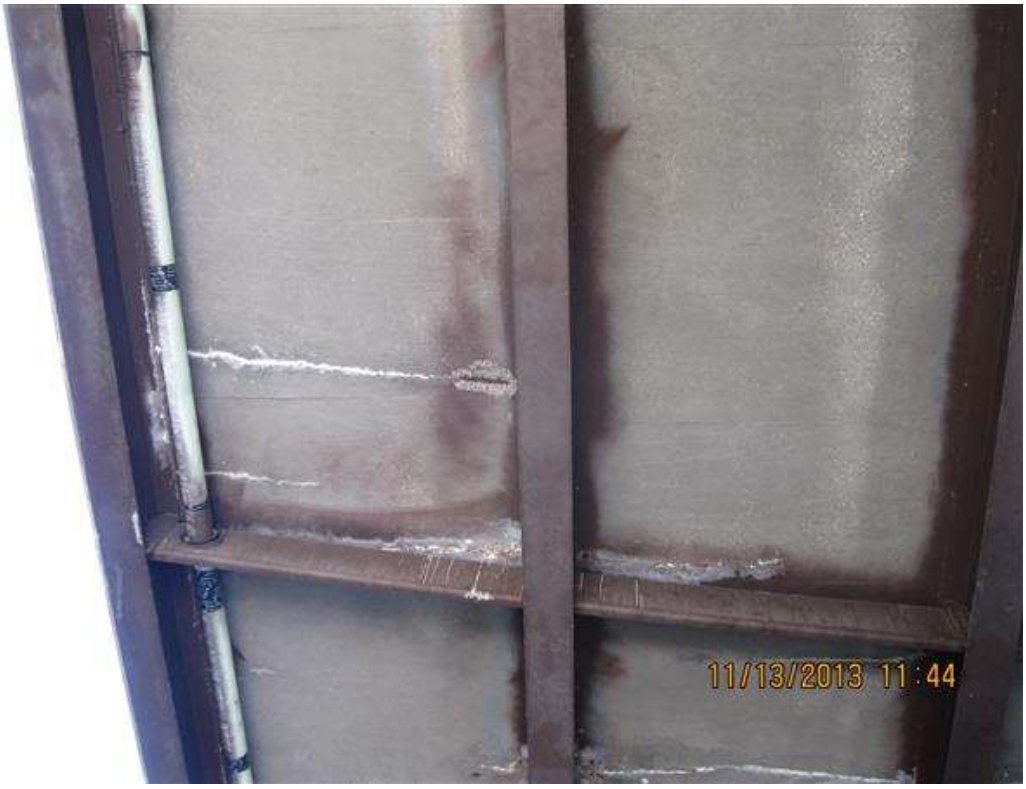


Photo 4 -

Pictures



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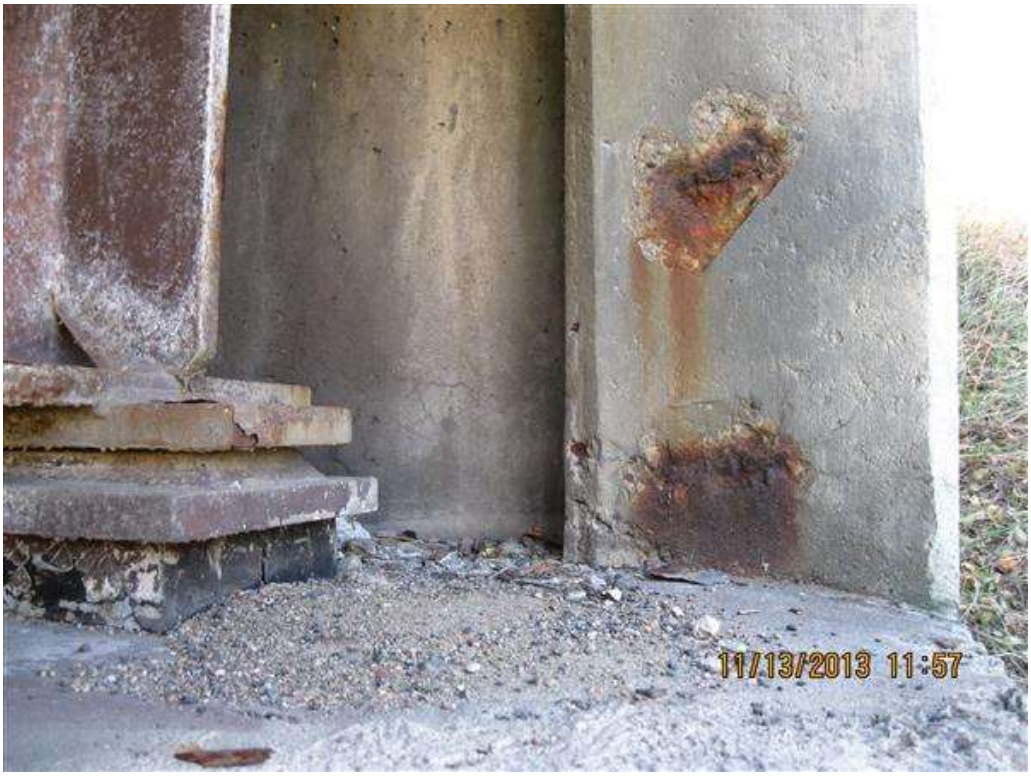

Photo 6 -

Pictures

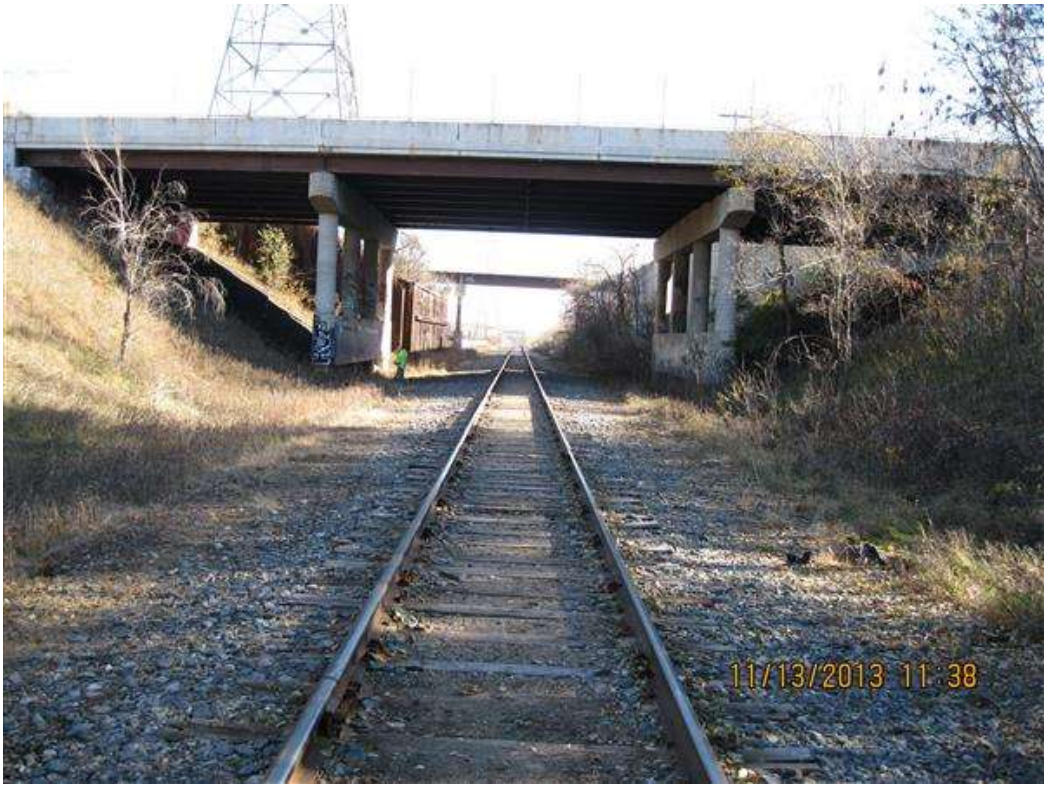

Photo 7 -

1. bearing NE cor..JPG

2. east side.JPG

3. looking north.JPG

4. looking south.JPG

5. spall & crack under deck.JPG

6. spalls by wing on SW cor..JPG

7. west side.JPG

Culvert

Bridge No.: 62001

Culvert

Item	*Description*	*Condition*	*Comments*
Culvert Overall:	**NBI Item 62**	N	Bridge

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.: 62001

Channel

Item	*Description*	*Condition*	*Comments*
Channel Overall:	**NBI Item 61**	N	Not over water

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.: 62001

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.: 62001

BRIDGE OWNER: County Highway Agency

DATE INSPECTED: 11/05/2015

STRUCTURE TYPE: Steel Continuous Stringer/Multi-beam or Girder

FACILITY CARRIED: RICE ST

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