2015 ROUTINE
BRIDGE INSPECTION REPORT

BRIDGE # 62543
CSAH 68(MCKNIGHT) over UP RR

DISTRICT: Metro **COUNTY: Ramsey** **CITY/TOWNSHIP: Maplewood**

Date(s) of Inspection: 10/16/2015
Equipment Used:

Owner: County Highway Agency

Inspected By: Essler, Brian

Report Written By: Brian Essler
Report Reviewed By: Nicklaus Fischer
Final Report Date: 01/05/2016

MnDOT Bridge Office
3485 Hadley Avenue North
Oakdale, MN 55128

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MnDOT Structure Inventory Report

Bridge ID: 62543 CSAH 68(MCKNIGHT) **over** UP RR **Date:** 01/05/2016

GENERAL

Agency Br. No.
District Metro
Maint. Area **Crew**
County 062 - Ramsey
City Maplewood
Township
Desc. Loc. 0.3MI N OF JCT CSAH 31
Sect., Twp., Range 24 - 029N - 22W
Latitude **Deg** 44 **Min** 58 **Sec** 52.04
Longitude **Deg** 93 **Min** 0 **Sec** 15.66
Custodian 02 - County Highway Agency
Owner 02 - County Highway Agency
BMU Agreement
Year Built 1988
MN Year Reconstructed
FHWA Year Reconstructed
MN Temporary Status
Bridge Plan Location 1 - CENTRAL
Date Opened to Traffic
On-Off System 1 - ON
Legislative District 55A

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 28 L
Culvert Type
Barrel Length ft.
Cantilever ID

NUMBER OF SPANS

MAIN: 3 **APPR:** 0 **TOTAL:** 3
Main Span Length 81.2 ft.
Structure Length 188.4 ft.
Deck Width (Out-to-Out) 79.9 ft.
Deck Material 1 - Concrete Cast-in-Place
Wear Surf Type 4 - Low Slump Concrete
Wear Surf Install Year 1988
Wear Course/Fill Depth 0.16 ft.
Deck Membrane 0 - None
Deck Rebars 1 - Epoxy Coated Reinforcing
Deck Rebars Install Year 1988
Structure Area (Out-to-Out) 15053 sq. ft.
Roadway Area (Curb-to-Curb) 10549 sq. ft.
Sidewalk Width **Lt** 10.00 ft. **Rt** 6.00 ft.
Curb Height **Lt** 0.00 ft. **Rt** 0.00 ft.
Rail Type **Lt** 30 **Rt** 30

ROADWAY

Bridge Match ID (TIS) 0
Roadway O/U Key Route On Structure
Route Sys 04 - CSAH **Number** 68
Roadway Name or Description
CSAH 68
Level of Service 1 - MAINLINE
Roadway Type 2 - 2-way traffic
Control Section (TH Only)
Reference Point 005+00.773
Detour Length 4.0 mi
Lanes **On** 4 **Under** 0
ADT 11056 **Year** 2008
HCADT 0 **ADTT** 0 **%**
Functional Class 16 - Urban - Minor Arterial

RDWY DIMENSIONS

If Divided	NB-EB	SB-WB
Roadway Width	56.00 ft.	ft.
Vertical Clearance	ft.	ft.
Max. Vert. Clear.	ft.	ft.
Horizontal Clear.	55.9 ft.	ft.
Lateral Clearance	ft.	ft.

Appr. Surface Width 56.0 ft.
Bridge Roadway Width 56.0 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) 3 - FTG PILE
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 94.8
Routine Inspection Date 10/16/2015
Routine Inspection Frequency 24
Inspector Name County, Ramsey
Status A - Open

NBI CONDITION RATINGS

Deck 7 - Good Condition
Unsound Deck % 2
Superstructure 7 - Good Condition
Substructure 6 - Satisfactory Condition
Channel N - Not Applicable
Culvert N - Not Applicable

NBI APPRAISAL RATINGS

Structure Evaluation 6
Deck Geometry 5
Underclearances 5
Water Adequacy N - Not Applicable
Approach Alignment 6 - Equal to present minimu

SAFETY FEATURES

Bridge Railing 1 - MEETS STANDARDS
GR Transition 0 - SUBSTANDARD
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 2 - AS HS 32.9
Inventory Rating 2 - AS HS 20.0
Posting VEH: **SEMI:** **DBL:**
Rating Date 6/11/1988

MnDOT Permit Codes

A: N - N/A
B: N - N/A
C: N - N/A

MnDOT Structure Inventory Report

Additional Roadways

Bridge ID: 62543 CSAH 68(MCKNIGHT) over UP RR **Date:** 01/05/2016

MnDOT BRIDGE INSPECTION REPORT

01/05/2016

Inspector: County, Ramsey

BRIDGE 62543 CSAH 68(MCKNIGHT) OVER UP RR — ROUTINE INSP. DATE: 10/16/2015

County: Ramsey
City: Maplewood
Township:
Section: 24 Township: 029N Range: 22W
Span Type: 5 - Prestressed Concrete 02 - Stringer/Multi-beam or Girder
List:
NBI Deck: 7 Super: 7 Sub: 6 Chan: N

Location: 0.3MI N OF JCT CSAH 31
Route: 04 - CSAH 68 Ref. Pt.: 005+00.773
Control Section:
Maint. Area:
Local Agency Bridge Nbr.:
Culv: N
Open, Posted, Closed: A - Open
MN Scour Code: A - NON WATERWAY

Length: 188.4 ft.
Deck Width: 79.9 ft.
Rdwy. Area/ Pct. Unsnd: 10549 sq. ft. / 2%
Paint Area/ Pct. Unsnd: sq. ft. / %
Culvert: N/A
Postings:

Appraisal Ratings - Approach: 6 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
109	Prestressed Concrete Girder or Beam	2	Routine	10/16/2015	925 LF	0	925	0	0	N/A
			Routine	10/30/2013	925 LF	0	925	0	0	N/A

☐ Requires Monitoring ☐ Monitored

Notes: [2015] Steel diaphragms are in place.
[2007-2015] There is a moderate spall at the east side of the north end of #3 girder.
[2001-2015] Minor cracking exists with no evidence or corrosion.

205	Reinforced Concrete Column	2	Routine	10/16/2015	8 EA	7	1	0	0	N/A
			Routine	10/30/2013	8 EA	7	1	0	0	N/A

☐ Requires Monitoring ☐ Monitored

Notes: [2005-2015] There is minor cracking at base of column #1.

210	Reinforced Concrete Pier Wall	1	Routine	10/16/2015	123 LF	120	3	0	0	N/A
			Routine	10/30/2013	123 LF	120	3	0	0	N/A

☐ Requires Monitoring ☐ Monitored

Notes: [2015] There is a 8" spall on the south wall at column 3
[2007-2013] Minor spalling on both sides. There is some minor cracking at SW corner.
[2007-2013] There is some minor vertical cracking on the north side. There is spalling at the NE corner.
[2009-2013] There is a moderate to major spall at column #3.
The walls are railroad struts on the bottom of the columns.

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
215	Reinforced Concrete Abutment	2	Routine	10/16/2015	177 LF	0	89	89	0	N/A
			Routine	10/30/2013	177 LF	0	89	89	0	N/A

☐Requires Monitoring ☐Monitored

Notes: [2015] The south abutment has 9 moderate spalls with corrosion between girder 4-7.
[2015] The north abutment has a 2 (1' X 1') spalls between girder 4-5 & 5-6 and a 4"X4" delamination with rust between 6-7and 15 minor vertical cracks.
[2013-2015] The south abutment has 15 minor to moderate vertical cracks with some moderate corrosion. At concrete girder #7 there is exposed re-bar with corrosion.
[2007-2015] There is deterioration of membrane at both abutments at slope paving.
[2001-2013] The east 1/2 of the south abutment has rebar corrosion causing spalling and delamination.
[2009-2013] The north abutment has 15 minor vertical cracks. The north abutment has re-bar corrosion between #4& #5 and #5 &#6 concrete girders. The east 1/2 of the north abutment has rebar corrosion & also at SE corner north abutment. The backwall has a vertical crack w/corrosion between #4 &#5 girders.

234	Reinforced Concrete Pier Cap	2	Routine	10/16/2015	177 LF	172	4	2	0	N/A
			Routine	10/30/2013	177 LF	172	4	2	0	N/A

☐Requires Monitoring ☐Monitored

Notes: [2003-2015] Rusting at centerline underneath side of south cap. Rusting at NE cor. cap. Void underside pier cap at SW cor. column #1.
2005-2015] There is some vertical cracking w/corrosion @ NE corner north cap. Superficial cracking with no effect on strength.

300	Strip Seal Deck Joint	2	Routine	10/16/2015	148 LF	0	148	0	N/A	N/A
			Routine	10/30/2013	148 LF	0	148	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2001-2015] Failure at both ends- punctured in several locations with debris resulting in leakage on abutments. Both expansion joints at north & south ends should be replaced.
[1995-2015] Need to be cleaned & flushed for further inspection.

301	Poured Deck Joint	2	Routine	10/16/2015	148 LF	0	148	0	N/A	N/A
			Routine	10/30/2013	148 LF	0	148	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2007-2015] There are moderate adhesion & cohesion failures of the hot poured joint Some spalls adjacent to the joint at the north end. There is a 2' spall at north end 2007-2011.
[2007-2015] Major spalls adjacent to the joint at south end. There is a 4' spall at south end.

311	Expansion Bearing	2	Routine	10/16/2015	25 EA	25	0	0	N/A	N/A
			Routine	10/30/2013	25 EA	25	0	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2003-2015] Proper alignment and functioning as intended.

313	Fixed Bearing	2	Routine	10/16/2015	25 EA	25	0	0	N/A	N/A
			Routine	10/30/2013	25 EA	25	0	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2003-2015] Proper alignment and functioning as intended.

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	10/16/2015	2 EA	0	2	0	0	N/A
			Routine	10/30/2013	2 EA	0	2	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: [2013-2015] There are 4 longitudinal cracks w/spalls in so. approach slab & 6 long. cracks in north approach slab (4 moderate longitudinal & 2 minor longitudinal cracks).
[2013-2015] There is 125 LF of moderate cracking on the north approach slab + 88 LF moderate cracking on the south approach slab for a total of 213 LF.
[2013-2015] The south approach slab has major delamination adjacent to joint at SE corner in need of rehabilitation (area 4.5' X 0.5').
[2011-2015] The north approach slab has two major spalls at deck joint.
[2001-2013] Moderate cracking & spalls present at northbound & southbound outside lanes.

333	Masonry, Other or Combination Material Railing	2	Routine	10/16/2015	479 LF	0	479	0	N/A	N/A
			Routine	10/30/2013	479 LF	0	479	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2013-2015] Numerous minor vertical cracking & moderate spalling w/efflorescence at east rail.
[2005-2015] West rail has numerous vertical cracks, spalling present. Also corrosion at NW corner.
[2005-2015] Major spalling 82' south of NW corner. Anchorage is exposed & bottom of rail fence is loose.
East side has parapet rail with CL-fence on top. West side has J barrier with CL-fence on top.

358	Concrete Deck Cracking Smart Flag	2	Routine	10/16/2015	1 EA	0	1	0	0	N/A
			Routine	10/30/2013	1 EA	0	1	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: [2013-2015] Unsealed cracks of minor to moderate size and density.

359	Underside of Concrete Deck Smart Flag	1	Routine	10/16/2015	1 EA	1	0	0	0	0
			Routine	10/30/2013	1 EA	1	0	0	0	0

☐Requires Monitoring ☐Monitored

Notes: [2013-2015] Minor cracking and light leaching exists.

377	Low Slump O/L (Concrete Deck with Epoxy Rebar)	2	Routine	10/16/2015	15048 SF	0	15048	0	0	0
			Routine	10/30/2013	15048 SF	0	15048	0	0	0

☐Requires Monitoring ☐Monitored

Notes: [2009-2015] There is some minor diagonal cracking @ SW, SE & NE corners.
[2003-2015] There are tight horizontal and longitudinal cracks predominately in south bound lanes. Distressed area < 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
387	Reinforced Concrete Wingwall	2	Routine	10/16/2015	4 EA	0	4	0	0	N/A
			Routine	10/30/2013	4 EA	0	4	0	0	N/A

☐Requires Monitoring ☐Monitored

Notes: [2013-2015] Minor cracking & minor spalling exists on all wing walls.

964	Critical Finding Smart Flag	2	Routine	10/16/2015	1 EA	1	0	N/A	N/A	N/A
			Routine	10/30/2013	1 EA	1	0	N/A	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: DO NOT DELETE THIS CRITICAL FINDING SMART FLAG.

981	Signing	2	Routine	10/16/2015	1 EA	1	0	0	0	0
			Routine	10/30/2013	1 EA	1	0	0	0	0

☐Requires Monitoring ☐Monitored

Notes: [2003-2015] Horizontal clearance signs are in place and functioning properly.

982	Approach Guardrail	2	Routine	10/16/2015	1 EA	0	1	0	N/A	N/A
			Routine	10/30/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2015] Guardrail repaired NE & NW sections. Twisted end treatment at all corners.
[2013] Guardrail system is in place. Minor damage to SE and NE sections. There is moderate damage to SW and NW sections.

983	Plowstraps	2	Routine	10/16/2015	1 EA	0	0	1	N/A	N/A
			Routine	10/30/2013	1 EA	0	0	1	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2007-2015] Plowstraps are not present.
[2003-2007] Plowstraps are in place.

984	Deck & Approach Drainage	2	Routine	10/16/2015	1 EA	1	0	0	N/A	N/A
			Routine	10/30/2013	1 EA	1	0	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2003-2015] Drainage system is functioning properly.

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
985	Slopes & Slope Protection	2	Routine	10/16/2015	1 EA	0	1	0	N/A	N/A
			Routine	10/30/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2015] Moderate erosion at the NE corner along the slope paving.
[2013-2015] The south slope pavement has minor cracking.
[2009-2015] The north slope pavement has a 0.5' settlement along the north abutment.
There is movement of the north slope pavement from abutment. There is a 0.3' gap @ joint.
[2005-2015] Cracking 90% across the north side slope paving.
[2001-2015] Minor erosion along back side of wing walls & slope paving. Need fill.
[1997-2015] Bit. felt at top of slope paving both ends of bridge need repair.

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
986	Curb & Sidewalk	2	Routine	10/16/2015	1 EA	0	1	0	N/A	N/A
			Routine	10/30/2013	1 EA	0	1	0	N/A	N/A

☐Requires Monitoring ☐Monitored

Notes: [2013-2015] Some cracking & spalling w/ efflorescence & rusting underside of sidewalk on the east side. There is delamination located at the NE corner underside deck.
[2013-2015] There is some settlement of curb at SE, NE & NW corners.
[2007-2015] There is spalling @ NE corner. There is some minor to moderate cracking in sidewalk.
[2013] New curb installed at the SW corner.

General Notes: 2015 Bridge safety inspection was completed by B. Essler & D. Bodelson 10/16/2015.
2013 Bridge safety inspection was conducted by B. Wieman 10/30/2013.
2011 Bridge safety inspection was conducted by B. Wieman 10/4/2011.
2009 Bridge safety inspection was completed by B. Wieman on 7/14/2009.
2007 Bridge safety inspection was completed by B. Wieman & B. Essler 7/31/2007.
Bridge safety inspection was completed by Bret Wieman 8/24/2005.
2005 Graffiti on pier column webs, slope paving, abutments, diaphragms and concrete girders.
2005-2009 Hole in chain link fence 52' south of the NW corner. Recommend repair.
There are concrete diaphragms over abutments. The rest are steel diaphragms. Pre-rusted steel diaphragms are in place 2011.

58. Deck NBI: Minor cracking and light leaching

36A. Brdg Railings NBI: Type J w/fence

36B. Transitions NBI:

36C. Appr Guardrail NBI:

36D. Appr Guardrail Terminal NBI:

59. Superstructure NBI: minor cracking and isolated spalls

60. Substructure NBI: delamination and spalls in abutment

61. Channel NBI: Not over water

62. Culvert NBI: bridge

71. Waterway Adeq NBI: not over water

72. Appr Roadway Alignment NBI: very minor speed reduction due to horizontal and vertical curves

Inventory Notes:

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

Brian Essler
Inspector's Signature

Nicklaus Fischer
Reviewer's Signature

Pictures

Photo 1 - crack in beam NE corner

Photo 4 - East rail repair

Pictures

Photo 5 - Looking east

Photo 6 - Looking south

Pictures

Photo 9 - Looking north

Photo 10 - NE corner

Pictures

Photo 11 - South abutment 1

Photo 12 - South abutment 2

Pictures

Photo 13 - South abutment

Photo 14 - South approach spall

Pictures

Photo 15 - Spall on east rail

Photo 16 - SW guardrail connection

Pictures

Photo 17 - West rail spall.

Photo 18 - SW WW slope paving.

1. crack in beam NE corner.JPG

2. East rail repair.JPG

3. Looking east 1.JPG

4. Looking south.JPG

5. Looking north.JPG

6. NE corner.JPG

7. South abutment 1.JPG

8. South abutment 2.JPG

9. South abutment.JPG

10. South approach spall.JPG

11. Spall on east rail .JPG

12. SW guardrail connection.JPG

13. West rail spall.JPG

14. SW WW slope paving.JPG

Culvert

Bridge No.: 62543

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.: 62543

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.: 62543

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

Distance Measured From:

Elev. of Ref. Pt:

Depth to Water Surface:

WS Elev:

Vertical Datum:

Comments:

Downstream

Custom Label	Location	Elevation

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.: 62543

BRIDGE OWNER: County Highway Agency

DATE INSPECTED: 10/16/2015

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

FACILITY CARRIED: CSAH 68(MCKNIGHT)

FEATURES INTERSECTED: UP 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