

**2016 ROUTINE
BRIDGE INSPECTION REPORT**



**BRIDGE # 3575
CSAH 42(FORD PKY) over MISS R; MISS BL**

DISTRICT: Metro COUNTY: Ramsey CITY/TOWNSHIP: St Paul
STATE: Minnesota

Date of Inspection: 06/12/2016

Equipment Used: Full Body Harness, Other - Reachall UB-60

Owner: County Highway Agency

**Inspected By: Ekstrand, Ron; Engel, Michael; Grau, Joe; Reimer, Dan;
Schaaf, Jerry**

**Report Written By: Ron Ekstrand
Report Reviewed By: Glenn Pagel
Final Report Date: 09/27/2016**

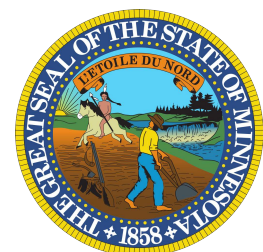


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Minnesota Structure Inventory Report

Bridge ID: 3575

CSAH 42(FORD PKY) over MISS R; MISS BL

Date: 08/31/2016

+ GENERAL +	+ ROADWAY +	+ INSPECTION +																				
Agency Br. No. Crew District 05 Maint. Area County 062 - Ramsey City St Paul Township Desc. Loc. AT W CO LINE Sect., Twp., Range 17 - 028N - 23W Latitude 44 ° 55 ' 4.36 " Longitude 93 ° 12 ' 4.77 " Custodian 04 - City or Municipal Highway Owner 02 - County Highway Agency BMU Agreement Year Built 1927 MN Year Reconstructed 2002 FHWA Year Reconstructed MN Temporary Status Bridge Plan Location 4 - MUNICIPAL Date Opened to Traffic On - Off System 1 - ON Legislative District 62A Potential ABC 2 - N/A	Bridge Match ID (TIS) 1 Roadway O/U Key Route On Structure Route Sys 04 - CSAH Number 42 Roadway Name or Description FORD PKWY-CSAH42 Level of Service 1 - MAINLINE Roadway Type 2 - 2-way traffic Control Section (TH Only) Reference Point 000+00.000 Detour Length 3.0 mi. Lanes ON 4 UNDER 4 ADT 17100 YEAR 2009 HCA DT ADTT % Functional Class 16 - Urban - Minor Arterial	Userkey 199 Structurally Deficient N Functionally Obsolete Y Sufficiency Rating 78.9 Routine Inspection Date 06/12/2016 Routine Inspection Frequency 12 Inspector Name Ekstrand, Ron Status A - Open																				
		+ NBI CONDITION RATINGS +																				
		Deck 7 Unsound Deck % Superstructure 7 Substructure 6 Channel 6 Culvert N																				
	+ RDWY DIMENSIONS +	+ NBI APPRAISAL RATINGS +																				
	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.	Structure Evaluation 5 Deck Geometry 5 Underclearances 3 Waterway Adequacy 9 Approach Alignment 9																				
+ STRUCTURE +		+ SAFETY FEATURES +																				
Service On 5 - Highway-pedestrian Service Under 6 - Highway - waterway Main Span Type 1 - Concrete Main Span Design 12 - Arch Main Span Detail V - OPEN SPANDREL ARCH Appr. Span Type 1 - Concrete Appr. Span Design 06 - Deck Girder Appr. Span Detail Skew 0 Culvert Type Barrel Length Cantilever ID Number of Spans MAIN: 5 APPR: 6 TOTAL: Main Span Length 327.4 ft. Structure Length 1523.6 ft. Deck Width (Out-to-Out) 83.5 ft. Deck Material 1 - Concrete Cast-in-Place Wear Surf Type 4 - Low Slump Concrete Wear Surf Install Year 2001 Wear Course/Fill Depth 0.16 ft. Deck Membrane 0 - None Deck Rebars 1 - Epoxy Coated Reinforcing Deck Rebars Install Year Structure Area (Out-to-Out) 123889 sq. ft. Roadway Area (Curb-to-Curb) 85321 sq. ft. Sidewalk Width 50A. Lt 10.20 ft. 50B. Rt 10.20 ft. Curb Height Lt 0.75 ft. Rt 0.75 ft. Rail Type Lt 51 Rt 51	+ MISC. BRIDGE DATA +	Bridge Railing 1 - MEETS STANDARDS GR Transition N - NOT REQUIRED Appr. Guardrail N - NOT REQUIRED GR Termini N - NOT REQUIRED																				
		+ IN DEPTH INSP. +																				
		<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Y/N</th> <th style="text-align: center;">Freq</th> <th style="text-align: center;">Date</th> </tr> </thead> <tbody> <tr> <td>Frac. Critical</td> <td style="text-align: center;">N</td> <td></td> <td></td> </tr> <tr> <td>Underwater</td> <td style="text-align: center;">N</td> <td style="text-align: center;">60</td> <td style="text-align: center;">10/30/2012</td> </tr> <tr> <td>Pinned Asbly.</td> <td style="text-align: center;">N</td> <td></td> <td></td> </tr> <tr> <td>Spec. Feat.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Y/N	Freq	Date	Frac. Critical	N			Underwater	N	60	10/30/2012	Pinned Asbly.	N			Spec. Feat.			
	Y/N	Freq	Date																			
Frac. Critical	N																					
Underwater	N	60	10/30/2012																			
Pinned Asbly.	N																					
Spec. Feat.																						
	+ PAINT +	+ WATERWAY +																				
	Year Painted Unsound Paint % Painted Area sq. ft. Primer Type Finish Type	Drainage Area (sq. mi.) Waterway Opening (sf.) 99999 Navigation Control 1 - Nav. control on waterway Pier Protection 1 - Not required Nav. Clr. (ft.) Vert. 52.0 Horiz. 200.0 Nav. Vert. Lift Bridge Clear. (ft.) 0 MN Scour Code N - STBL - LIM Year 1996																				
	+ BRIDGE SIGNS +	+ CAPACITY RATINGS +																				
	Posted Load 0 - Not Required Traffic 0 - Not Required Horizontal 0 - Not Required Vertical N - Not Applicable	Design Load 9 - HS 25 (OR GREATER) Operating Rating 1 - H TRUCK 23.0 Inventory Rating 1 - H TRUCK 13.8 Posting VEH: SEMI: DBL: Rating Date 8/1/1973 Overweight Permit Codes A N - N/A B N - N/A C N - N/A																				

MINNESOTA BRIDGE INSPECTION REPORT

09/27/2016

Inspector: CO Bridge

BRIDGE 3575 CSAH 42(FORD PKY) OVER MISS R; MISS BL

County: Ramsey	Location: AT W CO LINE	Length: 1523.6 ft.
City: St Paul	Route: 04 - CSAH 42 Ref. Pt.: 000+00.000	Deck Width: 83.5 ft.
Township:	Control Section:	Rdwy. Area/ Pct. Unsnd: 85321 sq. ft. / %
Section: 17 Township: 028N Range: 23W Maint. Area:		Paint Area/ Pct. Unsnd: sq. ft. / %
Span Type: 1 - Concrete 11 - Arch - Deck	Local Agency Bridge Nbr.:	Culvert: N/A
List:		Postings:

NBI Deck: 7 Super: 7 Sub: 6 Chan: 6 Culv: N
 Open, Posted, Closed: A - Open
 MN Scour Code: N - STBL - LIM SCOUR

Appraisal Ratings - Approach: 9 Waterway: 9		Unofficial Structurally Deficient N
Required Bridge Signs - Load Posting: 0 - Not Required	Traffic: 0 - Not Required	Unofficial Functionally Obsolete Y
Horizontal: 0 - Not Required	Vertical: N - Not Applicable	Unofficial Sufficiency Rating 78.9

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
12	Reinforced Concrete Deck	Routine	06/12/2016	19581 SF	19553	25	3	0
		Migrated Values		19581 SF	19553	25	3	0
	Notes: There are numerous transverse cracks with efflorescence showing thru the bottom of the slab under the sidewalk. 2011-16 3 sq. ft. of spalls - 1 inch or deeper. 2016 West end - from pier 12 to beam line h, east of pier 11. (140+33.03 to 140+89 = 56') East end - from beam line a, west of pier 6 to pier 2-1. (153+41 to 155+25.26 = 184.26') (west end 56') + (east end 184.26') = 240.26 LF. 2016 Deck width is 81.5' x 240.26' = 19,581 SF total. 2016							
510	Wearing Surfaces	Routine	06/12/2016	13455 SF	11749	0	1706	0
		Migrated Values		13455 SF	11749	0	1706	0
	Notes: The deck was replaced in 2003-2004. There are numerous 0.010" transverse hairline cracks in the N. and S. shoulder/ bicycle lane. 2005-16 Wear surface quantity = West end from pier 12 to beam line h, east of pier 11. (140+33.03 to 140+89 = 56') East end from beam line a, west of pier 6 to pier 2-1. (153+41 to 155+25.26 = 184.26') Roadway width 56' x length 240.26' = 13,455 sq. ft. of LS overlay. 2016 See element # 895 for sidewalk notes and deficiencies. 2016 Sidewalk width 11.5' x length 1519' X 2 = 34,937 sq. ft. of concrete walk. 2016 Need to verify the walk width on each side. (11' 6") 2016							
13	Prestressed Concrete Deck	Routine	06/12/2016	102614 SF	102614	0	0	0
		Migrated Values		102614 SF	102614	0	0	0
	Notes: From beam line h, east of pier 11 to beam line a, west of pier 6. 2016 Station 140+89 (beam line h) to station 153+41 (beam line a) = 1,252 feet. Deck width is 81.5'. 2016 81.5' x 1,252' = 102,038 SF. 2016 Outlook is approximately 8' x 18' = 144 SF. 2016 4 outlooks total x 144 = 576 SF. 2016 576 SF + 102,038 SF = 102,614 SF total. 2016							
510	Wearing Surfaces	Routine	06/12/2016	70112 SF	70112	0	0	0
		Migrated Values		70112 SF	70112	0	0	0
	Notes: Roadway width 56' X length 1,252' = 70,112 sq. ft. of LS overlay. 2016 From beam line h, east of pier 11 to beam line a, west of pier 6. 2016 Station 140+89 (beam line h) to station 153+41 (beam line a) = 1,252 feet.							

BRIDGE 3575 CSAH 42(FORD PKY) OVER MISS R; MISS BL

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
109	Prestressed Concrete Open Girder/Beam	Routine	06/12/2016	5900 LF	5900	0	0	0
		Migrated Values		5900 LF	5900	0	0	0
Notes: Post-tensioned concrete girder / beam - transverse. 2016 From pier 11 to pier 6. 2016 72 beam lines total. 2016 There is a 2 sq. ft. spall 8 ft. north of the centerline on the west face of floor beam h of span 7. 2006-08 The W. face of Floor beam E is spalled and delaminated for 6 sq. ft. and cracked E. of span 8. 2006-14 Minor to moderate cracking is present. 2015-16								
110	Reinforced Concrete Open Girder/Beam	Routine	06/12/2016	2594 LF	1705	876	13	0
		Migrated Values		2594 LF	1705	876	13	0
Notes: The north girder in span 10 from point u to point a (these are points shown on the bridge plans) has numerous vertical cracks up to 0.025 " from construction (assumed jackhammer damage). The east half of the beam in this span is old and the west half is recent reconstruction and both have cracks. The cracks in the west half of this girder are hairline cracks. 2007-12 NOTE THIS AREA IN FUTURE INSPECTIONS Minor to moderate cracking is present. 2015-16 13 LF of spalls - some with exposed rebar. 2016								
116	Reinforced Concrete Stringer	Routine	06/12/2016	6860 LF	6809	50	1	0
		Migrated Values		6860 LF	6809	50	1	0
Notes: In span 9, the S. arched stringer has a 2 sq. ft. delamination on the south face and west side of the midspan between floorbeams t and u. 2006-07 There is a sawcut 1" deep on the inside face of stringer C (arched stringer at Floorbeam D). 2006-08 There is a 1 sq. ft. spall on the bottom of beam 8 (arched stringer) of span 9, between points D and E 2 ft. E. of the center of the expansion joint opening. 2006-08 The east half of the north arched stringer has several fracture cracks up to 0.025" from construction damage. 2007 Minor to moderate cracking is present. 2015-16								
144	Reinforced Concrete Arch	Routine	06/12/2016	2594 LF	1669	883	42	0
		Migrated Values		2594 LF	1669	883	42	0
Notes: Spalls deeper than 1" are present. 2016 Some spalls have exposed rebar that are corroded / rusted. 2016 Wide cracks are present. 2016 Old element 385 - Arch Spandrel Column Notes: Quantity = 152 columns total. 2016 4 have delamination's CS-2. 2016 4 have spalls with exposed rebar present CS-3. 2016								
155	Reinforced Concrete Floor Beam	Routine	06/12/2016	796 LF	438	350	8	0
		Migrated Values		796 LF	438	350	8	0
Notes: Minor to moderate cracking is present. 2015-16 Changed quantity to 796 in 2016.								
205	Reinforced Concrete Column	Routine	06/12/2016	29 EA	15	12	2	0
		Migrated Values		29 EA	15	12	2	0
Notes: N. Face of pier 9 has a 1' & 4' spalled area 2" deep about 5' below the bottom of the deck. The north spandrel column at span 10 point a has several vertical hairline cracks. 2007-14 Minor to moderate cracking is present. 2015-16 S. face of pier 8 has a 1 SF spall. 2016								
215	Reinforced Concrete Abutment	Routine	06/12/2016	288 LF	274	14	0	0
		Migrated Values		288 LF	274	14	0	0
Notes: Runoff water daylights at east abut. 2011-16 Access opening into east abut. see photos. 2011-16 W. abut - N. side has some minor undermining. 2014-16 Moderate width cracks with leaching is present. 2016								

BRIDGE 3575 CSAH 42(FORD PKY) OVER MISS R; MISS BL

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
234	Reinforced Concrete Pier Cap	Routine	06/12/2016	1070 LF	706	360	4	0
		Migrated Values		1070 LF	706	360	4	0
Notes: The NE top corner of the N. spandrel column cap is spalled for 6 sq. in. at pt. D span 8. 2006-12 4 column capitols have spalls, 1 SF each. 2016								
300	Strip Seal Expansion Joint	Routine	06/12/2016	794 LF	794	0	0	0
		Migrated Values		794 LF	794	0	0	0
Notes: The metal extrusion is down by nearly 2" at many of the expansion joints. 2005-16 Leaky joints. At bridge rail between walk and roadway. 2011-16								
301	Pourable Joint Seal	Routine	06/12/2016	322 LF	108	112	87	15
		Migrated Values		322 LF	108	112	87	15
Notes: The east approach joint is spalled and cracked for 15 feet at the north end. 2016 The west approach joint needs to be resealed. 2012-16 Complete adhesion failure 87 feet - CS3. 2016 Minor adhesion failure 112 feet - CS2. 2016								
321	Reinforced Concrete Approach Slab	Routine	06/12/2016	2026 SF	1721	102	203	0
		Migrated Values		2026 SF	1721	102	203	0
Notes: Minor to moderate deterioration. 2013-16 Unsealed moderate cracking is present. 2013-16 Minor spalling present. 2013-16 E. approach undermined at MH/paving block location. 2014 Ramsey County filled void with foam. 2014 The blacktop patch adjacent to the E. approach paving block seems to have heaved up a little. 2015 Temporary patches are present. 2016 Wide cracks are present. 2016 The E. approach is settling / sinking at the east edge - EB lanes. 2016								
330	Metal Bridge Railing	Routine	06/12/2016	5292 LF	4778	514	0	0
		Migrated Values		5292 LF	4778	514	0	0
Notes: Railing joint areas rusted solid,-breaking mounting loose from parapet on both sides. 2010-13 EB is worst. 2010 Repaired 4 bridge railing joints 2011. Repaired 36 bridge railing joint locations on the S. side, in 2014. Steel top rail has moderate corrosion. 2013-15 Some of the welds on the vehicle railing are deteriorating. monitor 2016 Ornamental metal railing is at the outside of the walks. 2011								
515	Steel Protective Coating	Routine	06/12/2016	13230 SF	0	12716	0	514
		Migrated Values		13230 SF	0	12716	0	514
Notes: Paint / coating system has minor to extensive failure. 2015 Recommend railing maintenance (prep and paint) 2014-15 All paint is faded and chalky. 2016 Paint at some bases is missing and rust is prevalent. 2016								
331	Reinforced Concrete Bridge Railing	Routine	06/12/2016	3430 LF	232	3180	18	0
		Migrated Values		3430 LF	232	3180	18	0
Notes: Rust staining is present from steel railing above. 2016 Scale and pop outs are present through out. 2016 Spalls at cover plates and expansion areas. Greater than 1" deep. 2016								
800	Critical Deficiencies or Safety Hazards	Routine	06/12/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
Notes: NO CRITICAL FINDINGS OBSERVED DURING THE LAST INSPEMCTION. 2016								
810	Concrete Decks - Cracking & Sealing	Routine	06/12/2016	8097 LF	8097	0	0	0
		Migrated Values		8097 LF	8097	0	0	0
Notes: There are numerous 0.010" transverse hairline cracks in the N. and S. shoulder/ bicycle lane. 2005-16 There are numerous 0.010" transverse hairline cracks in the N. and S. sidewalks. 2016								

BRIDGE 3575 CSAH 42(FORD PKY) OVER MISS R; MISS BL

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
880	Impact Damage	Routine	06/12/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
	Notes: Minor scrapes at MRB. No significant damage. 2016							
883	Concrete Shear Cracking	Routine	06/12/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
	Notes: Use this element to monitor the presence of shear cracking on concrete elements. Pay particular attention to the concrete pier caps.							
890	Load Posting or Vertical Clearance Signing	Routine	06/12/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
	Notes: The vertical clearance signs are in place and in good condition. 2016 They are located on the roadway that runs under the bridge, at the east end. (St. Paul side) 2016							
892	Slopes & Slope Protection	Routine	06/12/2016	1 EA	0	0	0	1
		Migrated Values		1 EA	0	0	0	1
	Notes: There is minor washing out at the S. side of Pier 6 and the north side of pier 12. 2007 The north bank of the west abutment moderate erosion around the drainage pipe. See inspection pictures 5-7 in photo library dated 2008-10 [2009] Very significant washout continuing on the St. Paul side of the structure. Material being transported from the slope and under the structure down to the riverbank creating a large berm. Additional erosion has added to the material down slope on the East side. 2010-16 Severe erosion, repairs are recommended. 2012-16							
894	Deck & Approach Drainage	Routine	06/12/2016	1 EA	0	0	0	1
		Migrated Values		1 EA	0	0	0	1
	Notes: Runoff from sidewalks creates dripline at the bridge edges below at the slope areas. 2013-16 Saturated soils at the abuts. Water runs frequently creating erosion. W and E sides 2013-16 End of pipe drainage area has severe erosion issue. E. side near pier 6. 2013-16 CB lead creating undermined area at E. approach paving block/MH location. 2014 Ramsey County foamed the void under the pavement. 2014 MH at E. approach found to be plugged with debris. 2014 Notified bridge owner - Ramsey County. 2014 Drainage system has failed, Runoff has resulted in slope erosion. 2014-16							
895	Sidewalk, Curb, & Median	Routine	06/12/2016	1 EA	0	0	0	1
		Migrated Values		1 EA	0	0	0	1
	Notes: Numerous transverse cracks & random cracks in the walks. 2005-15 Sidewalk width 11.5' X length 1516' X 2 = 34,880 sq. ft. of concrete walk. 2016 3" settlement SW approach walk. 2016 2" settlement NW approach walk. 2016							
899	Miscellaneous Items	Routine	06/12/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
	Notes: Construction debris on top of bridge members from reconstruction of deck. 2011-14 There is 64 light standards on the bridge. 2016							
900	Protected Species	Routine	06/12/2016	1 EA	0	1	0	0
		Migrated Values		1 EA	0	1	0	0
	Notes: Swallows and Peregrine Falcons are present. 2016							

General Notes: The vertical control monument is at the west end of the north railing. 2007
Received as-built plans from the county in 2011.

58. Deck NBI: Minor cracking, leaching and wear. 2013-15

36A. Brdg Railings NBI:

36B. Transitions NBI:

36C. Appr Guardrail NBI:

BRIDGE 3575 CSAH 42(FORD PKY) OVER MISS R; MISS BL

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
36D.	Appr Guardrail Terminal NBI:							
59.	Superstructure NBI:	Minor scaling and cracking.	2011					
60.	Substructure NBI:	Minor to moderate deterioration.	2015					
		Light to moderate scaling present at the piers.	2015					
61.	Channel NBI:	See underwater inspection from 2012. Collins Engineering, Inc. Job No. 7423						
62.	Culvert NBI:							
71.	Waterway Adeq NBI:							
72.	Appr Roadway Alignment NBI:							
	Inventory Notes:							

Ron Ekstrand
Inspector's Signature

Glenn Pagel
Reviewer's Signature



1. 017-concrete arch Unit 8a-g, ss.jpg



2. 018-sidewalk edge spall Unit 8a-d,ss.jpg



3. 019-spandrel beam spall, Unit 8b btw t-s, ss.jpg



4. 020-spandrel beam spall Unit 4 btw a-b, ns.jpg



5. 021-spandrel beam cracking Unit 3 btw e-f, ns.jpg



6. 8th light standard from the E, N side of bridge.JPG



7. Concrete rail (1).JPG



8. Concrete rail (2).JPG



9. Concrete rail, SW end, drive lane.JPG



10. Concrete rail, SW end, sidewalk side.JPG



11. Light standard.JPG



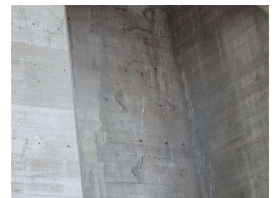
12. mid span on N side.JPG



13. pier 5 - S.side_1.jpg



14. pier 5 - S.side_2.jpg



15. Pier 8, S side facing N.JPG



16. Pier 9, NW corner.JPG



17. Span 6-7, N rib looking N (1).JPG



18. Span 6-7, N rib looking N (2).JPG



19. Span 6-7, N rib looking N (3).JPG



20. Span 6-7, N rib looking S.JPG



21. Span 6-7, Spandrel N, B looking S.JPG



22. Span 8-9, Facing N, Between spandrel A-B.JPG



23. Span 8-9, Facing N, Spandrel C.JPG



24. Span 8-9, Spandrel P cap.JPG



25. Span 9-10, Facing N, below spandrel O.JPG



26. Span 9-10, Facing N, spandrel F.JPG



27. Span 9-10, Spandrel A looking S.JPG



28. Span 9-10, Spandrel C looking S.JPG



29. Span 10-11, N rib bottom.JPG



30. Span 10-11, N rib looking N (1).JPG



31. Span 10-11, N rib looking N (2).JPG



32. Span 10-11, N rib looking N (3).JPG



33. SW sidewalk.JPG



34. W approach, facing N.JPG



35. W approach, facing S.JPG



36. Elevation view - Center River Span.JPG



37. Elevation view - E. River Span.JPG



38. Elevation view - W. River Span.JPG

Channel

Bridge No.: 3575

Channel

<i>Item</i>	<i>Description</i>	<i>Condition</i>	<i>Comments</i>
Channel Overall:	NBI Item 61	<u>6</u>	See underwater inspection from 2012. Collins Engineering, Inc. Job No. 7423

Bank Protection/Revetment

<i>Item</i>	<i>Description</i>	<i>Condition</i>	<i>Comments</i>
Upstream Bank Protection:		Good	
Downstream Bank Protection:		Good	
Bridge Revetment:			
Minnesota Scour Code:	<u>N - STBL - LIM SCOUR</u>		

Underwater Inspection

Underwater Inspection By Divers: No

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.	<u>No</u>	Is there a significant build-up of debris?
2.	<u>No</u>	Is there a change in the horizontal alignment of the handrail or structure members such as beams?
3.	<u>No</u>	Is there any indication of vertical movement of the superstructure?
4.	<u>No</u>	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.	<u>No</u>	Is there a significant change in the alignment of the exterior bearings?
6.	<u>No</u>	Are there cracks or other signs of distress in the approach pavement?
7.	<u>No</u>	Is the water currently on the superstructure?
8.	<u>No</u>	Are the slopes unstable?
9.	<u>No</u>	Do scour measurements indicate: (place a check by all that apply.)
	<input type="checkbox"/>	A. that the streambed is two or more feet below the bottom of pier footings which are supported on piles?
	<input type="checkbox"/>	B. scour below the bottom of spread footings?
	<input type="checkbox"/>	C. scour below the bottom of high abutment footings?
	<input type="checkbox"/>	D. that the streambed has scoured five feet or more below the original streambed elevation at pier bents?

10. No Have the scour countermeasures been damaged or otherwise made ineffective?

Notes:

- Streambed sounding data is to be documented.

- Per Minnesota 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: Under water inspection by MnDOT 2012.

See underwater inspection from 2012.
Collins Engineering, Inc.
Job No. 7423

Completed On _____ By _____

Scour POA

Bridge No.: 3575

Scour POA

1. Is POA on File? _____
2. Date of most recent POA: _____
3. Here is a link to Minnesota's Bridge Scour website for other
 - <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? _____