

**2016 ROUTINE
BRIDGE INSPECTION REPORT**



**BRIDGE # 92247
CSAH 51(LEXINGTON) over RECREATIONAL TRAIL**

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

Date of Inspection: 07/09/2016

Equipment Used:

Owner: County Highway Agency

Inspected By: Engel, Michael; Reimer, Dan; Schaaf, Jerry

Report Written By: Dan Reimer
Report Reviewed By: Glenn Pagel
Final Report Date: 10/14/2016

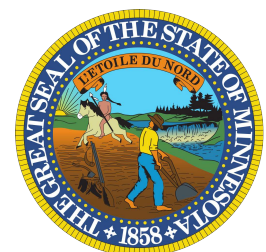


Table of Contents

<u>SECTION</u>	<u>PAGE</u>
COVER	1
STRUCTURE INVENTORY	2
ELEMENTS	3
THUMBNAIL PICTURES	5

Minnesota Structure Inventory Report

Bridge ID: 92247

CSAH 51 over RECREATIONAL
(LEXINGTON) TRAIL

Date: 10/14/2016

+ GENERAL +	+ ROADWAY +	+ INSPECTION +
Agency Br. No. District 05 Maint. Area County 062 - Ramsey City St Paul Township Desc. Loc. 0.1 MI N OF JCT MSAS 122 Sect., Twp., Range 23 - 029N - 23W Latitude 44° 58' 36" Longitude 93° 8' 48" Custodian 02 - County Highway Agency Owner 02 - County Highway Agency BMU Agreement Year Built 1904 MN Year Reconstructed FHWA Year Reconstructed MN Temporary Status Bridge Plan Location 4 - MUNICIPAL Date Opened to Traffic On - Off System 1 - ON Legislative District 66B Potential ABC 2 - N/A	Bridge Match ID (TIS) 0 Roadway O/U Key Route On Structure Route Sys 04 - CSAH Number 51 Roadway Name or Description CSAH 51 Level of Service 1 - MAINLINE Roadway Type 2 - 2-way traffic Control Section (TH Only) Reference Point 004+00.610 Detour Length 1.0 mi. Lanes ON 2 UNDER 0 ADT 14342 YEAR 2008 HCA DT ADTT % Functional Class 16 - Urban - Minor Arterial	Userkey 199 Structurally Deficient N Functionally Obsolete N Sufficiency Rating 84.4 Routine Inspection Date 07/09/2016 Routine Inspection Frequency 12 Inspector Name Reimer, Dan Status A - Open <hr/> + NBI CONDITION RATINGS + Deck N Unsound Deck % Superstructure 5 Substructure 7 Channel N Culvert N <hr/> + NBI APPRAISAL RATINGS + Structure Evaluation 5 Deck Geometry 4 Underclearances N Waterway Adequacy N Approach Alignment 5 <hr/> + SAFETY FEATURES + Bridge Railing 0 - SUBSTANDARD GR Transition N - NOT REQUIRED Appr. Guardrail N - NOT REQUIRED GR Termini N - NOT REQUIRED <hr/> + IN DEPTH INSP. + Frac. Critical Y/N Freq Date Underwater N Pinned Asbly. N Spec. Feat. <hr/> + WATERWAY + Drainage Area (sq. mi.) Waterway Opening (sf.) Navigation Control N - Not applicable, no Pier Protection Nav. Clr. (ft.) Vert. 0.0 Horiz. 0.0 Nav. Vert. Lift Bridge Clear. (ft.) MN Scour Code A - NON Year <hr/> + CAPACITY RATINGS + Design Load 0 - Other/Unknown Operating Rating 2 - HS TRUCK 30.0 Inventory Rating 2 - HS TRUCK 20.0 Posting VEH: SEMI: DBL: Rating Date 03/31/2015 Overweight Permit Codes A N - N/A B N - N/A C N - N/A
	+ RDWY DIMENSIONS +	
	If Divided NB-EB SB-WB Roadway Width 36.40 ft. ft. Vertical Clearance ft. ft. Max. Vert. Clear. ft. ft. Horizontal Clear. 36.3 ft. ft. Lateral Clearance ft. ft. Appr. Surface Width 36.0 ft. Bridge Roadway Width 36.4 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 (Material/Type) 1 - CONC 3 - FTG PILE Pier Foundation (Material/Type) N - N/A N - N/A Historic Status 1 - On National Register	
	+ 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 0 - Not Required	
+ STRUCTURE +		
Service On 5 - Highway-pedestrian Service Under 3 - Pedestrian - bicycle Main Span Type 1 - Concrete Main Span Design 12 - Arch Main Span Detail U - SPANRDEL FILLED ARCH Appr. Span Type Appr. Span Design Appr. Span Detail Skew 0 Culvert Type Barrel Length Cantilever ID Number of Spans MAIN: 1 APPR: 0 TOTAL: Main Span Length 38.6 ft. Structure Length 47.0 ft. Deck Width (Out-to-Out) 53.0 ft. Deck Material N - Not Applicable Wear Surf Type 6 - Bituminous Wear Surf Install Year Wear Course/Fill Depth 1.00 ft. Deck Membrane 0 - None Deck Rebars N - Not Applicable (no deck) Deck Rebars Install Year Structure Area (Out-to-Out) 2491 sq. ft. Roadway Area (Curb-to-Curb) sq. ft. Sidewalk Width 50A. Lt 7.00 ft. 50B. Rt 6.70 ft. Curb Height Lt 0.00 ft. Rt 0.00 ft. Rail Type Lt 02 Rt 02		

MINNESOTA BRIDGE INSPECTION REPORT

10/14/2016

Inspector: CO Bridge

BRIDGE 92247 CSAH 51(LEXINGTON) OVER RECREATIONAL TRAIL

County: Ramsey	Location: 0.1 MI N OF JCT MSAS 122	Length: 47.0 ft.
City: St Paul	Route: 04 - CSAH 51 Ref. Pt.: 004+00.610	Deck Width: 53.0 ft.
Township:	Control Section:	Rdwy. Area/ Pct. Unsnd: sq. ft. / %
Section: 23 Township: 029N 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: N Super: 5 Sub: 7 Chan: N Culv: N		
	Open, Posted, Closed: A - Open	
	MN Scour Code: A - NON WATERWAY	

Appraisal Ratings - Approach: 5 Waterway: N	Unofficial Structurally Deficient N
Required Bridge Signs - Load Posting: 0 - Not Required	Unofficial Functionally Obsolete N
Horizontal: 0 - Not Required	Unofficial Sufficiency Rating 84.4
Traffic: 0 - Not Required	
Vertical: 0 - Not Required	

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
144	Reinforced Concrete Arch	Routine	07/09/2016	52 LF	13	11	28	0
		Migrated Values		52 LF	13	11	28	0
Notes: There is about 45 SF of spall 1" deep or greater than 6" in diameter. 2016 Underdeck delams / spalls removed from arch. 2011 and 2012-13 and 2016 Moderate cracking, leaching and staining. 2011-16 Exposed reinforcement has corrosion / rust. 2011-16								
217	Masonry Abutment	Routine	07/09/2016	229 LF	0	0	229	0
		Migrated Values		229 LF	0	0	229	0
Notes: Tuck pointing is recommended. 2012-16 Water staining is present. 2011-16 Mortar joints at both abuts are deteriorating. 2015-16 2 blocks on the North and 2 blocks on the South are cracked vertically. Top course. 2016 Cracks and voids are in 10% or more of the joints. 2016								
334	Masonry Bridge Railing	Routine	07/09/2016	200 LF	200	0	0	0
		Migrated Values		200 LF	200	0	0	0
Notes: Minimum height of a crash railing with a speed of 40 mph or less is 2'4". 2010-15 See appendix "C" safety features of the inspection manual. 2013-15 Stone caps on the railing are moving - loose mortar is present. Less than 10%. 2015-16								
800	Critical Deficiencies or Safety Hazards	Routine	07/09/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
Notes: NO CRITICAL FINDINGS OBSERVED DURING THE LAST INSPECTION. 2016								
822	Bituminous Approach Roadway	Routine	07/09/2016	2 EA	2	0	0	0
		Migrated Values		2 EA	2	0	0	0
Notes: Recommend sealing of transverse joints in the bituminous wearing course. 2010-16 Bituminous roadway over bridge. Roadway base varies. 2011								
892	Slopes & Slope Protection	Routine	07/09/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
894	Deck & Approach Drainage	Routine	07/09/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
Notes: Use this element to rate the condition, function, and adequacy of the drainage system.								

BRIDGE 92247 CSAH 51(LEXINGTON) OVER RECREATIONAL TRAIL

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
895	Sidewalk, Curb, & Median	Routine	07/09/2016	1 EA	0	1	0	0
		Migrated Values		1 EA	0	1	0	0
Notes: Minor spalling of both walks. 93-04. New curb and walk, 89. E.curb has 3 spalls. 2010-16 Longitudinal and transverse joints should be sealed. 1993-2016 Many pop outs in the west walk. Scaling is present. 2015-16 The sidewalk ends at the bridge and there are no approach walks. 2000-16 Minor undermining of end walk panel. 2015 Class 5 added - all 4 corners. 2016								
899	Miscellaneous Items	Routine	07/09/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
Notes: Bituminous trail runs below the bridge. 2016								
900	Protected Species	Routine	07/09/2016	1 EA	1	0	0	0
		Migrated Values		1 EA	1	0	0	0
Notes: Use this element to track the presence of protected species living on this structure. None found in 2016								

General Notes: The bridge owner is Ramsey County.
 Contact: Nick Fisher 651-266-7119

58. Deck NBI: Bituminous roadway over bridge. Roadway base varies. 2011

36A. Brdg Railings NBI:

36B. Transitions NBI: Posted speed does NOT exceed 40 MPH. 2014

36C. Appr Guardrail NBI:

36D. Appr Guardrail
 Terminal NBI:

59. Superstructure NBI: Extensive cracking. 2011-15
 Moderate delams / spalls. 2011-15
 Corrosion / rust at steel trusses present. 2011-15

60. Substructure NBI: Minor cracking and leaching. 2011

61. Channel NBI:

62. Culvert NBI:

71. Waterway Adeq NBI:

72. Appr Roadway
 Alignment NBI:

Inventory Notes:

Dan Reimer
 Inspector's Signature

Glenn Pagel
 Reviewer's Signature



1. 2013 google view_4.png



2. 2014 Elevation view 021.JPG



3. E Curbline.JPG



4. E Sidewalk.JPG



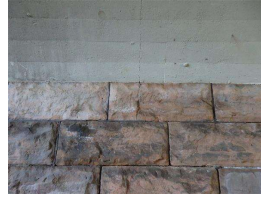
5. Facing E arch barrel.JPG



6. Facing W arch barrel.JPG



7. N Abutment (1).JPG



8. N Abutment (2).JPG



9. N abutment failed mortar joints.JPG



10. S Abutment (1).JPG



11. S Abutment (2).JPG



12. S abutment failed mortar joints.JPG



13. side view facing E.JPG



14. stone parapet cape failed mortar joints.JPG



15. W Sidewalk (1).JPG



16. W Sidewalk (2).JPG