

**2015 ROUTINE
BRIDGE INSPECTION REPORT**



**BRIDGE # 62599
PED over LEXINGTON AVE (CSAH 51)**

DISTRICT: Metro

COUNTY: Ramsey

CITY/TOWNSHIP: St Paul

Date(s) of Inspection: 06/07/2015

Equipment Used:

Owner: City or Municipal Highway Agency

Inspected By: Burt, Dick; Ekstrand, Ron; Engel, Michael; Reimer, Dan

Report Written By: Ron Ekstrand

Report Reviewed By: Glenn Pagel

Final Report Date: 12/21/2015

MnDOT Bridge Office
3485 Hadley Avenue North
Oakdale, MN 55128



MnDOT Structure Inventory Report

Bridge ID: 62599

PED

over LEXINGTON AVE (CSAH 51)

Date: 12/21/2015

GENERAL	
Agency Br. No.	
District	Metro
Maint. Area	Crew
County	062 - Ramsey
City	St Paul
Township	
Desc. Loc.	0.4 MI N OF JCT CSAH 31
Sect., Twp., Range	23 - 029N - 23W
Latitude	Deg 44 Min 58 Sec 52.39
Longitude	Deg 93 Min 8 Sec 44.54
Custodian	04 - City or Municipal Highway Agency
Owner	04 - City or Municipal Highway Agency
BMU Agreement	
Year Built	2003
MN Year Reconstructed	
FHWA Year Reconstructed	
MN Temporary Status	
Bridge Plan Location	4 - MUNICIPAL
Date Opened to Traffic	
On-Off System	0 - OFF
Legislative District	66B

STRUCTURE	
Service On	3 - Pedestrian-bicycle
Service Under	1 - Highway, w/ or w/out ped.
Main Span Type	
1 - Concrete	12 - Arch
Main Span Detail	
Appr. Span Type	
1 - Concrete	09 - Slab Span
Appr. Span Detail	
Skew	0
Culvert Type	
Barrel Length	ft.
Cantilever ID	

NUMBER OF SPANS		
MAIN: 1	APPR: 7	TOTAL: 8
Main Span Length	82.0	ft.
Structure Length	271.0	ft.
Deck Width (Out-to-Out)	16.0	ft.
Deck Material	1 - Concrete Cast-in-Place	
Wear Surf Type	1 - Monolithic Concrete (concr.	
Wear Surf Install Year		
Wear Course/Fill Depth	ft.	
Deck Membrane	0 - None	
Deck Rebars	0 - None	
Deck Rebars Install Year		
Structure Area (Out-to-Out)	0	sq. ft.
Roadway Area (Curb-to-Curb)	sq. ft.	
Sidewalk Width	Lt 0.00	Rt 0.00
Curb Height	Lt	Rt
Rail Type	Lt NN	Rt NN

ROADWAY	
Bridge Match ID (TIS)	
Roadway O/U Key	
Route Sys	Number
Roadway Name or Description	
Level of Service	
Roadway Type	
Control Section (TH Only)	
Reference Point	
Detour Length	mi
Lanes	On Under 2
	ADT Year
HCACT	0 ADTT 0 %
Functional Class	

RDWY DIMENSIONS		
If Divided	NB-EB	SB-WB
Roadway Width	ft.	ft.
Vertical Clearance	ft.	ft.
Max. Vert. Clear.	ft.	ft.
Horizontal Clear.	ft.	ft.
Lateral Clearance	ft.	ft.
Appr. Surface Width	ft.	
Bridge Roadway Width	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)	1 - SPRD SOIL
Pier Foundation	8 - CIP
(Material/Type)	4 - PILE BENT
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	0 - Not Required

INSPECTION	
Userkey	199
Unofficial Structurally Deficient	N
Unofficial Functionally Obsolete	N
Unofficial Sufficiency Rating	-2
Routine Inspection Date	06/07/2015
Routine Inspection Frequency	24
Inspector Name	City of St. Paul
Status	

NBI CONDITION RATINGS	
Deck	7 - Good Condition
Unsound Deck %	
Superstructure	7 - Good Condition
Substructure	8 - Very Good Condition
Channel	N - Not Applicable
Culvert	N - Not Applicable

NBI APPRAISAL RATINGS	
Structure Evaluation	N
Deck Geometry	N
Underclearances	
Water Adequacy	N - Not Applicable
Approach Alignment	N - Not Applicable

SAFETY FEATURES	
Bridge Railing	N - NOT REQUIRED
GR Transition	N - NOT REQUIRED
Appr. Guardrail	N - NOT REQUIRED
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	7 - PEDESTRIAN
Operating Rating	5 - NRAP
Inventory Rating	5 - NRAP
Posting VEH:	SEMI: DBL:
Rating Date	
MnDOT Permit Codes	
A:	N - N/A
B:	N - N/A
C:	N - N/A

MnDOT BRIDGE INSPECTION REPORT

12/21/2015

Inspector: City of St. Paul

BRIDGE 62599 PED OVER LEXINGTON AVE (CSAH 51)

ROUTINE INSP. DATE: 06/07/2015

County: Ramsey	Location: 0.4 MI N OF JCT CSAH 31	Length: 271.0 ft.
City: St Paul	Route: Ref. Pt.:	Deck Width: 16.0 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: 7 Super: 7 Sub: 8 Chan: N Culv: N	Open, Posted, Closed:	
	MN Scour Code: A - NON WATERWAY	
Appraisal Ratings - Approach: N Waterway: N		Unofficial Structurally Deficient N
Required Bridge Signs - Load Posting: 0 - Not Required	Traffic: 0 - Not Required	Unofficial Functionally Obsolete N
Horizontal: 0 - Not Required	Vertical: 0 - Not Required	Unofficial Sufficiency Rating N

Structure Unit:

ELEM NBR	ELEMENT NAME	ENV	REPORT TYPE	INSP. DATE	QUANTITY	QTY	QTY	QTY	QTY	QTY
						CS 1	CS 2	CS 3	CS 4	CS 5
012	Top of Concrete Deck (No Overlay - Uncoated Rebar)	1	Routine	06/07/2015	797 SF	0	797	0	0	0
			Routine	06/07/2013	797 SF	0	797	0	0	0

Requires Monitoring Monitored

Notes: Hairline transverse cracks. 2010-15
 15 SF of scale, NW.side at 4th rail post from the west. 2010-15
 Combined area of unsound wearing surface is 2% or less than the total deck area. 2015
 Recommend sealing the deck. 2015

144	Reinforced Concrete Arch	1	Routine	06/07/2015	98 LF	98	0	0	0	N/A
			Routine	06/07/2013	98 LF	98	0	0	0	N/A

Requires Monitoring Monitored

Notes: There is a hairline transverse crack above the west curb. 06-07.

205	Reinforced Concrete Column	1	Routine	06/07/2015	12 EA	12	0	0	0	N/A
			Routine	06/07/2013	12 EA	12	0	0	0	N/A

Requires Monitoring Monitored

Notes:

210	Reinforced Concrete Pier Wall	2	Routine	06/07/2015	1 LF	1	0	0	0	N/A
			Routine	06/07/2013						

Requires Monitoring Monitored

Notes: Added element 210 in 2015.
 Need LF quantity.

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	1	Routine	06/07/2015	23 LF	16	7	0	0	N/A
			Routine	06/07/2013	23 LF	20	3	0	0	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: 3 sq. ft. of shallow spalls at the top vertical face of the east abutment. 2015 2 sq. ft. of spall, top of W.abut. 2015 Minor spall are present. 2013-15										
234	Reinforced Concrete Pier Cap	1	Routine	06/07/2015	72 LF	72	0	0	0	N/A
			Routine	06/07/2013	72 LF	72	0	0	0	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: < none >										
303	Assembly Deck Joint (with or without seal)	2	Routine	06/07/2015	40 LF	18	15	7	N/A	N/A
			Routine	06/07/2013						
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: Added element 303 in 2015. Quantity = 40 LF total 7' of the seal is missing. 2015 15' of the seal is lifting up and creating a tripping issue. 2015										
311	Expansion Bearing	1	Routine	06/07/2015	1 EA	1	0	0	N/A	N/A
			Routine	06/07/2013	1 EA	1	0	0	N/A	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: The bottom of the deck at the west abutment bearing was placed below the bottom of the bearing material up to 3/8 inch and is spalling off the bottom of the deck from expansion. 07-15 E. expansion bearing lacking. June, 2010 All expansion joints leak slightly. June, 2010-15										
321	Concrete Approach Slab-Concrete Wearing Surface	1	Routine	06/07/2015	2 EA	2	0	0	0	N/A
			Routine	06/07/2013	2 EA	2	0	0	0	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: Longitudinal approach panel crack at W.side. 2010-15 Minor cracking and wear of the approaches is present. 2015 No delams or spalls. 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
334	Metal Bridge Railing (Coated or Painted)	1	Routine	06/07/2015	541 LF	400	66	75	0	0
			Routine	06/07/2013	541 LF	466	0	75	0	0

 Requires Monitoring Monitored

Notes: Two anchorage of four is broken on the 12th post from the east on the south railing. Two anchors were not installed on the 6th post from the east end of the south railing. 07-11 Railing base plate connections are missing bolts at 4 posts. 2013 Various railing base plates are misaligned. 2013-15 Grout under the base plates is missing at various locations. 2015 Metal railing coating has minor to moderate deterioration. 2015 Surface corrosion and rust is becoming prevalent. 2015

358	Concrete Deck Cracking Smart Flag	2	Routine	06/07/2015	1 EA	1	0	0	0	N/A
			Routine	06/07/2013						

 Requires Monitoring Monitored

Notes: Added element 358 in 2015. Insignificant hairline transverse cracks are present. 2010-15

359	Underside of Concrete Deck Smart Flag	1	Routine	06/07/2015	1 EA	0	1	0	0	0
			Routine	06/07/2013	1 EA	0	1	0	0	0

 Requires Monitoring Monitored

Notes: There are transverse and longitudinal cracks with efflorescence in the underdeck. 05-15 4' X 4" spall on the north face coping. June-2010 Spall removed (see photos) 2011 Exposed rebar at this location. 2 LF delam also present. 2015 The underdeck distressed areas are 2% or less of the total deck area. 2013-15

385	Reinforced Concrete Arch Spandrel Column	2	Routine	06/07/2015	12 EA	12	0	0	0	N/A
			Routine	06/07/2013						

 Requires Monitoring Monitored

Notes: Added element 385 in 2015. Quantity = 12 each total.

387	Reinforced Concrete Wingwall	2	Routine	06/07/2015	4 EA	4	0	0	0	N/A
			Routine	06/07/2013	4 EA	4	0	0	0	N/A

 Requires Monitoring Monitored

Notes: 1 sq.ft. spall from expansion of the top corners of the west abutment, and 3 sq.ft. at the top of the E. Abutment. 05-06.

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
964	Critical Finding Smart Flag	2	Routine	06/07/2015	1 EA	1	0	N/A	N/A	N/A
			Routine	06/07/2013	1 EA	1	0	N/A	N/A	N/A

 Requires Monitoring Monitored

Notes: < none >

988	Miscellaneous Items	1	Routine	06/07/2015	1 EA	1	0	0	N/A	N/A
			Routine	06/07/2013	1 EA	1	0	0	N/A	N/A

 Requires Monitoring Monitored

Notes: One of three 1 inch diameter plastic pipes in the south rail concrete base is broken off at the 2nd expansion joint from the east end. 06-15

General Notes: The bridge is a Parks Department Structure. 2015

58. Deck NBI: Minor isolated deterioration. 2013
Cracking, leaching and scale present. 2013
Isolated spalling and exposed rebar present. 2013

36A. Brdg Railings NBI:

36B. Transitions NBI:

36C. Appr Guardrail NBI:

36D. Appr Guardrail
Terminal NBI:

59. Superstructure NBI: Minor deterioration. 2015
Isolated delams / spalling is present. 2015

60. Substructure NBI:

61. Channel NBI:

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. 6-22-2010_Deck scaling_1.JPG



2. 6-23-2010_approach crack.JPG



3. 6-23-2011_Arch-underdeck.JPG



4. 6-23-2011_Rail post anchors_1-1.JPG



5. 6-23-2011_Rail post anchors_2-1.JPG



6. 6-23-2011_Rail post anchors_3-1.JPG



7. 6-23-2011_Rail post anchors_4-1.JPG



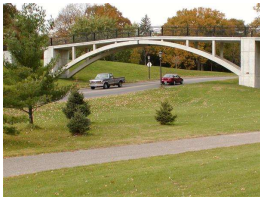
8. 6-23-2011_W.abut spall_1-1.JPG



9. 6-23-2011_W.abut spall_1-2.JPG



10. 6-23-2011_W.side abut.JPG



11. 2002_elevation view.JPG



12. 2013 Deckview_1.JPG



13. 2013 Deckview_2.JPG



14. 2013 elevation view.JPG



15. abut E.side_1.JPG



16. abut E.side_2.JPG



17. abut E.side_3.JPG



18. abut W.side_1.JPG



19. abut W.side_2.JPG



20. abut W.side_3.JPG



21. deck W.side scaling.JPG



22. exposed rebar_1.JPG



23. exposed rebar_2.JPG



24. ID plate.JPG



25. pierwall E.side_1.JPG



26. pierwall E.side_2.JPG



27. pierwall E.side_3.JPG



28. pierwall E.side_4.JPG



29. pierwall E.side_5.JPG



30. pierwall W.side_1.JPG



31. stripseal joint_1.JPG



32. stripseal joint_2.JPG



33. stripseal joint_3.JPG



34. underdeck distress E.side_1.JPG



35. underdeck distress E.side_2.JPG



36. underdeck distress
E.side_3.JPG



37. underdeck distress
E.side_4.JPG



38. underdeck distress
E.side_5.JPG



39. underdeck distress
E.side_6.JPG



40. underdeck distress
E.side_7.JPG



41. underdeck distress
E.side_8.JPG



42. underdeck distress
E.side_9.JPG