

**2015 ROUTINE
BRIDGE INSPECTION REPORT**

**BRIDGE # 62511
LEXINGTON (CSAH51) over AYD MILL RD; CP RAIL**

DISTRICT: Metro

COUNTY: Ramsey

CITY/TOWNSHIP: St Paul

Date(s) of Inspection: 10/09/2015

Equipment Used:

Owner: County Highway Agency

Inspected By: Lee, Joseph; Schaaf, Jerry; Sirian, Kirk

Report Written By: Jerry Schaaf

Report Reviewed By: Glenn Pagel

Final Report Date: 12/30/2015

**MnDOT Bridge Office
3485 Hadley Avenue North
Oakdale, MN 55128**



MnDOT Structure Inventory Report

Bridge ID: 62511

LEXINGTON (CSAH51)

over AYD MILL RD; CP RAIL

Date: 12/30/2015

GENERAL	
Agency Br. No.	
District	Metro
Maint. Area	Crew
County	062 - Ramsey
City	St Paul
Township	
Desc. Loc.	AT THE JCT AYD MILL RD
Sect., Twp., Range	11 - 028N - 23W
Latitude	Deg 44 Min 55 Sec 54.61
Longitude	Deg 93 Min 8 Sec 47.70
Custodian	02 - County Highway Agency
Owner	02 - County Highway Agency
BMU Agreement	
Year Built	1964
MN Year Reconstructed	1984
FHWA Year Reconstructed	
MN Temporary Status	
Bridge Plan Location	1 - CENTRAL
Date Opened to Traffic	
On-Off System	1 - ON
Legislative District	64A

STRUCTURE	
Service On	5 - Highway-pedestrian
Service Under	4 - Highway - railroad
Main Span Type	
	4 - Steel Continuous 01 - Beam Span
Main Span Detail	
Appr. Span Type	
	3 - Steel 01 - Beam Span
Appr. Span Detail	
Skew	27 R
Culvert Type	
Barrel Length	ft.
Cantilever ID	F - Friction Hinge

NUMBER OF SPANS	
MAIN: 3	APPR: 1 TOTAL: 4
Main Span Length	80.0 ft.
Structure Length	265.4 ft.
Deck Width (Out-to-Out)	58.8 ft.
Deck Material	1 - Concrete Cast-in-Place
Wear Surf Type	4 - Low Slump Concrete
Wear Surf Install Year	1984
Wear Course/Fill Depth	0.17 ft.
Deck Membrane	0 - None
Deck Rebars	0 - None
Deck Rebars Install Year	
Structure Area (Out-to-Out)	15606 sq. ft.
Roadway Area (Curb-to-Curb)	11679 sq. ft.
Sidewalk Width	Lt 6.00 ft. Rt 6.00 ft.
Curb Height	Lt 0.75 ft. Rt 0.75 ft.
Rail Type	Lt 19 Rt 19

ROADWAY	
Bridge Match ID (TIS)	1
Roadway O/U Key	Route On Structure
Route Sys	04 - CSAH Number 51
Roadway Name or Description	LEXINGTON AVE (CSAH 51)
Level of Service	1 - MAINLINE
Roadway Type	2 - 2-way traffic
Control Section (TH Only)	
Reference Point	001+00.355
Detour Length	1.0 mi
Lanes	On 2 Under 4
	ADT 13025 Year 2005
HCACT	0 ADTT 0 %
Functional Class	16 - Urban - Minor Arterial

RDWY DIMENSIONS			
If Divided	NB-EB	SB-WB	
Roadway Width	44.00 ft.		ft.
Vertical Clearance	17 ft.	18.3	ft.
Max. Vert. Clear.			ft.
Horizontal Clear.	43.9 ft.		ft.
Lateral Clearance			ft.
Appr. Surface Width	44.0 ft.		
Bridge Roadway Width	44.0 ft.		
Median Width On Bridge			ft.

MISC. BRIDGE DATA	
Structure Flared	0 - No flare
Parallel Structure	N - No parallel structure
Field Conn. ID	2 - Riveted
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	1998
Unsound Paint %	5
Painted Area	21800 sq. ft.
Primer Type	1 - Lead - non 3309
Finish Type	M - Urethane

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	96.8
Routine Inspection Date	10/09/2015
Routine Inspection Frequency	24
Inspector Name	City of St. Paul
Status	A - Open

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

NBI APPRAISAL RATINGS	
Structure Evaluation	6
Deck Geometry	6
Underclearances	4
Water Adequacy	N - Not Applicable
Approach Alignment	8 - Equal to present desirabl

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

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 34.6
Inventory Rating	1 - LF (LF) HS 20.8
Posting VEH:	SEMI: DBL:
Rating Date	05/14/2012

MnDOT Permit Codes	
A:	N - N/A
B:	N - N/A
C:	N - N/A

MnDOT BRIDGE INSPECTION REPORT

12/30/2015

Inspector: City of St. Paul

BRIDGE 62511 LEXINGTON (CSAH51) OVER AYD MILL RD; CP RAIL

ROUTINE INSP. DATE: 10/09/2015

County: Ramsey	Location: AT THE JCT AYD MILL RD	Length: 265.4 ft.
City: St Paul	Route: 04 - CSAH 51 Ref. Pt.: 001+00.355	Deck Width: 58.8 ft.
Township:	Control Section:	Rdwy. Area/ Pct. Unsnd: 11679 sq. ft. / %
Section: 11 Township: 028N Range: 23W Maint. Area:		Paint Area/ Pct. Unsnd: 21800 sq. ft. / 5%
Span Type: 4 - Steel Continuous 02 -	Local Agency Bridge Nbr.:	Culvert: N/A
List: Stringer/Multi-beam or Girder		Postings:
NBI Deck: 6 Super: 7 Sub: 6 Chan: N Culv: N		
	Open, Posted, Closed: A - Open	
	MN Scour Code: A - NON WATERWAY	

Appraisal Ratings - Approach: 8 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 96.8

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
022	Low Slump O/L (Concrete Deck with Uncoated Rebar)	2	Routine	10/09/2015	15608 SF	0	15608	0	0	0
			Routine	10/09/2013	15608 SF	0	15608	0	0	0

Requires Monitoring Monitored

Notes: The combined area of unsound wearing surface is less than 2%. 2011-15
 Minor transverse and horizontal cracking. (TKDA 2012) - 15
 Majority located on the south side. (TKDA 2012) - 15
 Cracks were sealed in 2015.

107	Painted Steel Girder or Beam	2	Routine	10/09/2015	1614 LF	1568	23	23	0	0
			Routine	10/09/2013	1614 LF	1568	23	23	0	0

Requires Monitoring Monitored

Notes: Surface corrosion present. Isolated rust areas. 2011-15
 Minor rust on fascia beams. (TKDA 2012) - 15
 Quantity change from 2287 LF to 1614 LF. (TKDA 2012)

205	Reinforced Concrete Column	2	Routine	10/09/2015	8 EA	8	0	0	0	N/A
			Routine	10/09/2013	8 EA	8	0	0	0	N/A

Requires Monitoring Monitored

Notes: No additional deterioration. (TKDA 2012) - 15

210	Reinforced Concrete Pier Wall	2	Routine	10/09/2015	74 LF	0	68	6	0	N/A
			Routine	10/09/2013	74 LF	0	68	6	0	N/A

Requires Monitoring Monitored

Notes: Moderate horizontal and vertical cracking present. 2011-15
 Remodeled in 1984. see plans for pier # 3
 3 sq. ft. of concrete spalling, north side (east) of pier. (TKDA 2012) - 15
 Spalling with exposed rebar and leaking from above. (TKDA 2012) - 15
 Exposed rebar, west side of pier 3. 6 sq. ft. (TKDA 2012) - 15
 Quantity change from 73 LF to 74 LF. (TKDA 2012)

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	10/09/2015	131 LF	66	66	0	0	N/A
			Routine	10/09/2013	131 LF	66	66	0	0	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: Hairline horizontal and vertical cracks. 2011-15 No additional deterioration. (TKDA 2012) - 15										
234	Reinforced Concrete Pier Cap	2	Routine	10/09/2015	138 LF	138	0	0	0	N/A
			Routine	10/09/2013	138 LF	138	0	0	0	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: Quantity = pier 1 at 69' + pier 2 at 69' = 138 Ln. Ft. 2011 No additional deterioration. (TKDA 2012) - 15										
300	Strip Seal Deck Joint	2	Routine	10/09/2015	131 LF	121	10	0	N/A	N/A
			Routine	10/09/2013	131 LF	121	10	0	N/A	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: Minor leakage at the joints. 2011-15 Dirty joints. 2011-15 Joints at Piers 1 and 3 show evidence of leaking and rust. (TKDA INSPECTION 2012) - 15 Repair made at the S.end strip seal. 2015										
301	Poured Deck Joint	2	Routine	10/09/2015	131 LF	131	0	0	N/A	N/A
			Routine	10/09/2013	131 LF	126	5	0	N/A	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: Repairs made to all poured joints in 2015.										
311	Expansion Bearing	2	Routine	10/09/2015	25 EA	25	0	0	N/A	N/A
			Routine	10/09/2013	25 EA	25	0	0	N/A	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: At piers 1 and 3. (TKDA 2012) Quantity change from 33 each to 25 each. (TKDA 2012)										
313	Fixed Bearing	2	Routine	10/09/2015	25 EA	25	0	0	N/A	N/A
			Routine	10/09/2013	25 EA	25	0	0	N/A	N/A
			<input type="checkbox"/> Requires Monitoring			<input type="checkbox"/> Monitored				
Notes: At the abutments and pier 2. (TKDA 2012) Quantity change from 26 each to 25 each. (TKDA 2012)										

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	10/09/2015	2 EA	0	2	0	0	N/A
			Routine	10/09/2013	2 EA	1	1	0	0	N/A
		<input type="checkbox"/> Requires Monitoring		<input type="checkbox"/> Monitored						
Notes: Minor to moderate deterioration. 2011-15 Moderate cracking, minor delaminations / spalling. 2011-15 Asphalt patches and overlaid areas at both approaches. 2015										
333	Masonry, Other or Combination Material Railing	2	Routine	10/09/2015	509 LF	509	0	0	N/A	N/A
			Routine	10/09/2013	509 LF	509	0	0	N/A	N/A
		<input type="checkbox"/> Requires Monitoring		<input type="checkbox"/> Monitored						
Notes: Minor vertical cracking. (TKDA 2012) - 15										
358	Concrete Deck Cracking Smart Flag	2	Routine	10/09/2015	1 EA	1	0	0	0	N/A
			Routine	10/09/2013	1 EA	1	0	0	0	N/A
		<input type="checkbox"/> Requires Monitoring		<input type="checkbox"/> Monitored						
Notes: Many transverse cracks in deck and walk. 2014 Deck cracks and walk cracks were sealed. 2015 Spalling concrete with exposed rebar, pier #3 from west side center span and by junction box. 2 sq. ft. each. (TKDA 2012) - 15										
359	Underside of Concrete Deck Smart Flag	2	Routine	10/09/2015	1 EA	0	1	0	0	0
			Routine	10/09/2013	1 EA	0	1	0	0	0
		<input type="checkbox"/> Requires Monitoring		<input type="checkbox"/> Monitored						
Notes: Electrical box cover location. Adjacent spalls. 2011-15 Underdeck efflorescence present. 2011-15 Underdeck distressed areas total is 2% or less of total deck area. 2011-15 Minor cracking under joints with efflorescence, spalling concrete and exposed rebar, under RR span. (TKDA 2012) - 15 2nd span from the south, center bay, 30 SF of spall over S.bound traffic. 2013-15										
373	Steel Hinge Assembly	2	Routine	10/09/2015	8 EA	4	2	2	0	0
			Routine	10/09/2013	8 EA	6	0	2	0	0
		<input type="checkbox"/> Requires Monitoring		<input type="checkbox"/> Monitored						
Notes: Quantity = 8 each. (TKDA 2012) Paint system has extensive deterioration on Z of the hinge assemblies. Supporting steel superstructure has moderate deterioration. (TKDA 2012) - 15 4 hinge assemblies have corrosion. 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
380	Secondary Structural Elements	2	Routine	10/09/2015	1 EA	0	1	0	0	N/A
			Routine	10/09/2013	77 EA	0	77	0	0	N/A

 Requires Monitoring Monitored

Notes: No additional deterioration. (TKDA 2012) - 15

387	Reinforced Concrete Wingwall	2	Routine	10/09/2015	4 EA	2	2	0	0	N/A
			Routine	10/09/2013	4 EA	2	2	0	0	N/A

 Requires Monitoring MonitoredNotes: Northeast and northwest wing walls 1 1/2" apart at top. 85-07.
No additional deterioration. (TKDA 2012) - 15

964	Critical Finding Smart Flag	2	Routine	10/09/2015	1 EA	1	0	N/A	N/A	N/A
			Routine	10/09/2013	1 EA	1	0	N/A	N/A	N/A

 Requires Monitoring Monitored

Notes: DO NOT DELETE THIS CRITICAL FINDING SMART FLAG.

982	Approach Guardrail	2	Routine	10/09/2015	1 EA	1	0	0	N/A	N/A
			Routine	10/09/2013	1 EA	1	0	0	N/A	N/A

 Requires Monitoring MonitoredNotes: New guardrail on the south side of Ayd Mill Road. 2003
Minor impact damage N.side guard rail at Ayd Mill Rd. under bridge. 2011
Damage to NB lane on Ayd Mill Rd. (TKDA 2012)

983	Plowstraps	2	Routine	10/09/2015	1 EA	0	1	0	N/A	N/A
			Routine	10/09/2013	1 EA	0	1	0	N/A	N/A

 Requires Monitoring Monitored

Notes: 3 missing plow straps. 2015

985	Slopes & Slope Protection	2	Routine	10/09/2015	1 EA	0	1	0	N/A	N/A
			Routine	10/09/2013	1 EA	0	1	0	N/A	N/A

 Requires Monitoring MonitoredNotes: Three sq. ft. of spalling and sixteen lin. ft. of cracks at the bottom of the south slope paving. 2003-15
Top of S.side slope joint is open. needs sealing. 2011
No additional deterioration. (TKDA 2012) - 15

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
986	Curb & Sidewalk	2	Routine	10/09/2015	1 EA	1	0	0	N/A	N/A
			Routine	10/09/2013	1 EA	1	0	0	N/A	N/A

 Requires Monitoring Monitored

Notes: Minor deterioration, longitudinal and transverse cracking present. 2011-13
All cracks were sealed in 2015.

988	Miscellaneous Items	1	Routine	10/09/2015	1 EA	1	0	0	N/A	N/A
			Routine	10/09/2013	1 EA	1	0	0	N/A	N/A

 Requires Monitoring Monitored

Notes: < none >

General Notes: CP railroad contact:
Nate Lund (651) 238-8033 nathan_lund@cpr.ca

58. Deck NBI: Moderate cracking, minor leaching. 2011
Cracks were sealed in 2015.

36A. Brdg Railings NBI:

36B. Transitions NBI:

36C. Appr Guardrail NBI:

36D. Appr Guardrail
Terminal NBI:

59. Superstructure NBI:

60. Substructure NBI: Minor to moderate deterioration. 2011
Moderate cracking at pier # 3. Remodeled 1984. 2011

61. Channel NBI:

62. Culvert NBI:

71. Waterway Adeq NBI:

72. Appr Roadway
Alignment NBI:

Inventory Notes:

Jerry Schaaf
Inspector's Signature

Glenn Pagel
Reviewer's Signature

