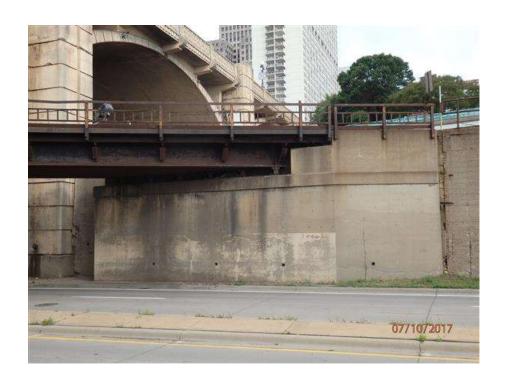
2018 ROUTINE BRIDGE INSPECTION REPORT



BRIDGE # 6837 UP RR over CSAH 37(SHEPARD RD)

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

STATE: Minnesota

Date of Inspection: 07/08/2018

Equipment Used:

Owner: Railroad

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

Report Written By: Dan Reimer Report Reviewed By: Glenn Pagel Final Report Date: 10/30/2018



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Minnesota Structure Inventory Report

Bridge ID: 6837 UP RR over CSAH 37(SHEPARD RD)

Bridge ID: 6837 UP RR	over CSAH 37(SHEPARD RD)				
+ GENERAL +	+ ROADWAY ON BRIDGE +	+ INSPECTION +			
Agency Br. No.	Road Name Railroad over	Structurally Deficient Y			
District 05 Maint. Area	Functional Class.	Functionally Obsolete			
County 062 - Ramsey	ADT YEAR	Sufficiency Rating			
City St Paul	HCADT ADTT %	Last Routine Insp Date 07/08/2018			
Township	National Highway System	Routine Insp Frequency 12			
Desc. Loc. 0.1 MI W OF JCT TH 52	Route Sys/Nbr /	Inspector Name Reimer, Dan			
Sect., Twp., Range 6 - 028N - 22W	Ref. Point (TIS)	Status A - Open			
Latitude 44 d 56 m 41.31 s	Detour Length mi.				
Longitude -93 d 05 m 16.87 s	Lanes Lanes ON Bridge	+ NBI CONDITION RATINGS +			
Custodian 27 - Railroad	Control Section (TH Only)	Deck 7			
Owner 27 - Railroad	Function	Superstructure 7			
	Type 0 - Highway traffic not carried	Substructure 7			
Year Built 1956	Bridge Match ID	Channel N			
Date Opened to Traffic	Roadway Key	Culvert N			
MN Year Remodeled					
FHWA Year Reconstructed	+ RDWY DIMENSIONS ON BRIDGE +	+ NBI APPRAISAL RATINGS +			
Bridge Plan Location 4 - MUNICIPAL	If Divided: NB-EB SB-WB	Structure Evaluation 3			
Potential ABC 2 - N/A	Roadway Width ft ft	Deck Geometry N			
	Vertical Clearance ft ft	Underclearances 3			
+ STRUCTURE +	Max. Vert. Clear. ft ft	Waterway Adequacy N			
Service On 2 - Railroad	Horizontal Clear. ft ft	Approach Alignment N			
Service Under 1 - Highway, w/ or w/out ped.	Appr. Surface Width ft				
Main Span Type 3 - Steel	Bridge Roadway Width ft	+ SAFETY FEATURES +			
Main Span Design 01 - Beam Span	Median Width On Bridge ft	Bridge Railing N - NOT REQUIRED			
Main Span Detail	MICO PRIDOS DATA	GR Transition N - NOT REQUIRED			
Appr. Span Type	+ MISC. BRIDGE DATA + Structure Flared 0 - No flare	Appr. Guardrail N - NOT REQUIRED			
Appr. Span Design		GR Termini N - NOT REQUIRED			
Appr. Span Detail Skew 60 LEFT	Parallel Structure N - No parallel structure Field Conn. ID	+ SPECIAL INSPECTIONS +			
Culvert Type	Cantilever ID	+ SPECIAL INSPECTIONS + Y/N Freq Date			
Barrel Length	Cantilever ID	Frac. Critical			
Number of Spans	Foundations (Material/Type)	Underwater			
MAIN: 2 APPR: 0 TOTAL:	Abutment 1 - CONC 3 - FTG PILE	Pinned Asbly.			
Main Span Length 57.5 ft	Pier 1 - CONC 3 - FTG PILE	Timed Assiy.			
Structure Length 110.3 ft	Historic Status 5 - Not eligible	+ WATERWAY +			
Deck Width (Out-to-Out) 16.7 ft	On - Off System 0 - OFF	Drainage Area (sq mi)			
Deck Material N - Not Applicable		Waterway Opening (sq ft)			
Wear Surf Type N - Not Applicable (applies only to	+ PAINT +	Navigation Control N - Not applicable, no waterway			
Wear Surf Install Year	Year Painted 1956	Pier Protection 3 - In place; deteriorated condition			
Wear Course/Fill Depth 0.00 ft	Painted Area 5280 sq ft	Nav. Clr. (ft) Vert. 0.0 Horiz. 0.0			
Deck Membrane 0 - None	Primer Type 1 - Lead - non 3309	Nav. Vert. Lift Bridge Clear. (ft)			
Deck Rebars N - Not Applicable (no deck)	Finish Type A - Red Lead	MN Scour Code A - NON WATERWAY			
Deck Rebars Install Year		Scour Evaluation Year 2001			
Structure Area (Out-to-Out) 1842 sq ft	+ BRIDGE SIGNS +	1			
Roadway Area (Curb-to-Curb) sq ft	Posted Load 0 - Not Required	+ CAPACITY RATINGS +			
Sidewalk Width - L/R 0.00 ft 0.00 ft	Traffic 0 - Not Required	Design Load 8 - RAILROAD			
Curb Height - L/R 0.00 ft 0.00 ft	Horizontal 0 - Not Required	Operating Rating 7 - RAILROAD 65.0			
Rail Codes - L/R NN NN	Vertical 0 - Not Required	Inventory Rating 7 - RAILROAD 65.0			
		Posting VEH: SEMI: DBL:			
		Rating Date			
		Overweight Permit Codes			
		A: N B: N C: N			
	<u>. </u>	<u> </u>			

Minnesota Structure Inventory Report

Additional Roadways

Bridge ID: 6837 UP RR over CSAH 37(SHEPARD RD) **Date:** 10/30/2018

ROADWAY							
Bridge Match ID (TIS): 0 5A. Roadway On/Under: 2 - UNDERRECORD 2 TYPE (IF ONLY 1 Bridge Route System: 4 - COUNTY HIGHWAY 5D. Route Number: 37							
	vay Name or De	escription					
	CSAH 37	· .					
5C. Level of Service: 1 - MAINLINE 102. Direction of Traffic: 2 - 2-way traffic Control Section (TH Only): 62 Reference Point: 19. Detour Length (mi): 0 Lanes: 4 29. ADT: 16135 30. Year: 2008 26. Functional Class: 14 Traffic Sequence Number: 41515 InterRegional Corridor (TH Only):							
RO	ADWAY DIMEN	SIONS					
Roadway Width (ft): Vertical Clearance (ft): Max. Vert. Clear. (ft): Horizontal Clear. (ft):	NB-E 22.4 14. 14. 27.	10 4 4	SB-WB 22.30 14.5 14.5 25.7				
Lateral Clearance (ft):	Lef 1.1	-	Right 1.4				
32. Appr. Roadway Width (ft 51. Brdg Roadway Width (ft) Median Width (ft): 10. Vertical Clearance (ft): 47. Horizontal Clearance	•						

BRIDGE 6837 UP RR OVER CSAH 37(SHEPARD RD)

County	Ramsey Loc	ation: 0.1 MI	W OF JCT TH 52		Length:	1	10.3 ft.	
City:	St Paul Rou		Ref. Pt.:		Deck Wid		16.7 ft.	
Townsh		trol Section:				ea/ Pct. Un		/ %
Section					•	a/ Pct. Uns		
	1	ocal Agency Br	idae Nbr.:		Culvert:	N/A		
List:	Girder		3.		Postings:			
NBI De	ck: 7 Super: 7 Sub: 7 Chan:	N Culv: N						
		Open, Po	sted, Closed: A	- Open				
Δnnrais	al Ratings - Approach: N Waterway: N	MN Scou	r Code: A - NON	WATERWAY	ما ا	afficial Ctm	. atuma II Da	eficient V
	ed Bridge Signs - Load Posting: 0 - Not Require	ad	Traffic: 0 - I	Not Required			,	eficient Y
rtoquire	Horizntal: 0 - Not Require			Not Required		official Fun	•	
	rionzman o mormoquino	,	vortious.	torroquiou		official Suf	-	_
ELEM NBR	ELEMENT NAME R	EPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
30	Steel Deck Corrugated/Orthotropic/Etc.	Routine	07/08/2018	1842 SF	1842	0	0	0
	<u>-</u>	Routine	07/08/2017	1842 SF	1842	0	0	0
	Notes: Changed quantity to 110.3 X 16.7 =	1,842 sq. ft.						
	Tracks are active. 2016-18 Deck is covered with ties, tracks and ballas	t. 2016-18						
107	Steel Open Girder/Beam	Routine	07/08/2018	630 LF	0	618	12	0
		Routine	07/08/2017	630 LF	0	618	12	0
	Notes: Surface corrosion / rust present. Flaking rust is present near the ends of the Pack rust is present on the stiffener of the V Repairs were made on the cantilever brack.	V. girder. S. en ets in 2017.	d. 2016-18	7047.05	٥	٥	057	0000
	515 - Steel Protective Coating	Routine	07/08/2018	7617 SF	0	0	957	6660
		Routine	07/08/2017	7617 SF	0	0	957	6660
	Notes: Paint system failing. 2010-18 Paint system is missing down to the primer	and exposed m	etal. 2016-18					
210	Reinforced Concrete Pier Wall	Routine	07/08/2018	49 LF	20	26	3	0
		Routine	07/08/2017	49 LF	20	27	2	0
	Notes: Center pier, N. side, Moderate map Delamination's starting at the Shote-Crete at The end of the center pier wall has a spall of Minor horizontal cracks at the west end of the With exposed rebar. 2016-18 S. side of center pier has a vertical shear or S. pier wall - SE corner has a vertical spall -	trea. 2016-1a leeper than 1 in the of the center ack. 2015-1a	8 ch and greater tha wall. 2018		liameter.	2016-18		
215	Reinforced Concrete Abutment	Routine	07/08/2018	64 LF	64	0	0	0
		Routine	07/08/2017	64 LF	64	0	0	0
	Notes: North abut. has 35 lin. ft. of minor von Debris and ballast on top of abutment. 20 Staining is present. 2018		2003-18 ange 2017-18					
234	Reinforced Concrete Pier Cap	Routine	07/08/2018	49 LF	33	12	4	0
		Routine	07/08/2017	49 LF	35	12	2	0
	Notes: 2 sq. ft. spall at the top of the center Greater than 1 inch deep - CS3. 2016-17 Center pier cap, N. side, 12 LF of delamina Recommend repairing the concrete pier cap	tion. 2016-18		nd) x2 2018				

BRIDGE 6837 UP RR OVER CSAH 37(SHEPARD RD)

ELEM NBR	ELEMENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	
311	Movable Bearing	Routine	07/08/2018	12 EA	0	12	0	0	
		Routine	07/08/2017	12 EA	0	12	0	0	
	Notes: Most bearings are slightly tipped.	Still tolerable.	2010-18						
	Freckled rust is present. 2016-18 Cleaning, paint, and lube. recommended.	2010-18							
13	Fixed Bearing	Routine	07/08/2018	12 EA	0	12	0	0	
	Ü	Routine	07/08/2017	12 EA	0	12	0	0	
	Notes: Cleaning, paint, recommended. Freckled rust is present. 2016-18	2010-18							
30	Metal Bridge Railing	Routine	07/08/2018	220 LF	110	110	0	0	
		Routine	07/08/2017	220 LF	110	110	0	0	
	Notes: Rail on the E. side is all metal cor Rail on the W. side is steel angle and cab Railing is for maintenance personnel only	le. 2016	16						
	515 - Steel Protective Coating	Routine	07/08/2018	410 SF	0	0	200	210	
		Routine	07/08/2017	410 SF	0	0	200	210	
	Notes: 210 SF of paint system failure - ex 200 SF of finish coat missing - primer is n		016-18 016-18						
00	Critical Deficiencies or Safety Hazards	Routine	07/08/2018	1 EA	1	0	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
	Notes: NO CRITICAL FINDINGS OBSER	RVED DURING TH	HE LAST INSPEC	TION. 2016-	18				
55	Secondary Members (Superstructure)	Routine	07/08/2018	1 EA	0	1	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
	Notes: Diaphragms - freckled rust is pres	ent. 2018							
80	Impact Damage	Routine	07/08/2018	1 EA	1	0	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
	Notes: Minor scrapes from high loads.	1985-18							
83	Concrete Shear Cracking	Routine	07/08/2018	1 EA	1	0	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
	Notes: Use this element to monitor the pr	esence of shear of	cracking on concre	ete elements. P	ay particul	ar attention	to the cor	crete pier caps	
85	Scour	Routine	07/08/2018	1 EA	1	0	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
	Notes: K - Limited risk. Monitoring requir	ed. 2" of scour un	der N.Side of Pier	r 3 & 14" under	the S. side	e. 2005			
	No change - 2011 Additional rip-rap possibly needed at the river side of the S. abutment pier wall. 2017-18								
90	Load Posting or Vertical Clearance Signing	Routine	07/08/2018	1 EA	1	0	0	0	
	Notes: 14' 3" clearance signage is in place	Routine e - WB direction o	07/08/2017 only. 2016-18	1 EA	1	0	0	0	
91	Other Bridge Signing	Routine	07/08/2018	1 EA	1	0	0	0	
		Routine	07/08/2017	1 EA	1	0	0	0	
	Notes: Object markers in place at the cer	nter pier wall locat	ion - WB and EB	2018					
92	Slopes & Slope Protection	Routine	07/08/2018	1 EA	0	1	0	0	
		Routine	07/08/2017	1 EA	0	1	0	0	
	Notes: Use this element to rate the condi Additional rip-rap possibly needed at the	tion of slopes and	slope protection.						

BRIDGE 6837 UP RR OVER CSAH 37(SHEPARD RD)

ELEM NBR		MENT NAME	REPORT TYPE	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	
894	Deck & Approach	n Drainage	Routine	07/08/2018	1 EA	1	0	0	0	
			Routine	07/08/2017	1 EA	1	0	0	0	
	Notes: Use the	is element to rate the c	ondition, function, and	adequacy of the	drainage syste	m.				
899	Miscellaneous Ite	ems	Routine	07/08/2018	1 EA	1	0	0	0	
			Routine	07/08/2017	1 EA	1	0	0	0	
	Notes: The ele There are 3 na	ectrical box cover is go ame plates on the bridg	ne on the north side of e -Bethlehem Steel Co	the center pier. mpany 1956.	2005-18					
		NSPECTION REPORT OVER THE RIVER.	IS ASSOCIATED WIT	H THE ONE BRI	IDGE SPAN O\	ER SHEP	ARD ROA	D - NOT AI	NY PORTIO	N OF
900	Protected Specie	es	Routine	07/08/2018	1 EA	0	1	0	0	
			Routine	07/08/2017	1 EA	1	0	0	0	
	Notes: Use the None found in	is element to track the 2016-18.	presence of protected s	species living on	this structure.					
	General Notes:	This bridge is to be N	MAINTAINED by Railro	ad per Agreeme	nt, dated June	24, 1954.				
		UP-RR contact: Mark Watlington 69	51-552-3934 cell 1-4	02-570-6947	mwwatlin@up.o	com				
	58. Deck NBI:									
36A. I	Brdg Railings NBI:									
36E	3. Transitions NBI:									
36C. A	ppr Guardrail NBI:									
36	6D. Appr Guardrail Terminal NBI:									
59. S	uperstructure NBI:									
60.	Substructure NBI:									
	61. Channel NBI:									
	62. Culvert NBI:									
71. Wa	aterway Adeq NBI:									
7	72. Appr Roadway Alignment NBI:									
		Dan Reimer				(Glenn Pa	gel		
	Ins	pector's Signature	_	-			iewer's Sig			



1. Cantilever brace over WB lane.JPG



2. E end of center Pier wall.JPG



3. Fixed bearing, center Pier wall.JPG



4. Fixed bearing, E side of center Pier wall.JPG



5. Fixed bearing, W side of center Pier wall.JPG



6. Metal rail, E side.JPG



7. Metal rail, W side.JPG



8. N side of center Pier cap (1).JPG



9. N side of center Pier cap (2).JPG



10. N side of center Pier wall (1).JPG



11. NE end of center Pier cap.JPG



12. SE end of E Girder (1).JPG



13. SE end of E Girder (2).JPG



14. SW end of W Girder.JPG



15. 2017 elevation view.JPG



16. beams - fascia.JPG



17. beams - under



18. center pier wall.JPG



19. facing west view.JPG



20. metal ped railing topside.JPG



21. N. side abut..JPG



22. north abutment rocker bearings.JPG



23. north pier wall facing south map cracking and spalls on pier cap.JPG



24. north pier wall large spalls exposed rebar.JPG



25. pier wall facing north.JPG



26. S. side abut..JPG



27. south pier wall large vertical spalls exposed rebar 16'lf.JPG



28. three cantilevers repaired 2016.JPG



29. E Girder, S end (1).JPG



30. E Girder, S end (2).JPG



31. SE Bearing at S Pier Wall.JPG