

**2012 ROUTINE
BRIDGE INSPECTION REPORT**



**BRIDGE # L8167
TRADG PT TR S (22) over STREAM**

DISTRICT: Metro

COUNTY: Washington

CITY/TOWNSHIP: Afton

Date(s) of Inspection: 10/09/2012

Equipment Used:

Owner: City or Municipal Highway Agency

Inspected By: Lovelace, Barritt

Report Written By: Barritt Lovelace

Report Reviewed By:

Final Report Date:

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



Table of Contents

<u>SECTION</u>	<u>PAGE</u>
SI&A	1
ADDITIONAL ROADWAYS	2
ROUTINE INSPECTION DATA	3
PICTURES	5
THUMBNAIL PICTURES	10
CULVERT	11

MnDOT Structure Inventory Report

Bridge ID: L8167

TRADG PT TR S (22)

over STREAM

Date: 11/09/2012

GENERAL	
Agency Br. No.	
District	Metro
Maint. Area	Crew
County	082 - Washington
City	Afton
Township	
Desc. Loc.	0.1 MI S OF JCT CSAH 18
Sect., Twp., Range	28 - 028N - 20W
Latitude	Deg 44 Min 53 Sec 17.72
Longitude	Deg 92 Min 48 Sec 47.32
Custodian	04 - City or Municipal Highway Agency
Owner	04 - City or Municipal Highway Agency
BMU Agreement	
Year Built	1920
MN Year Reconstructed	1957
FHWA Year Reconstructed	
MN Temporary Status	
Bridge Plan Location	0 - NO PLAN
Date Opened to Traffic	
On-Off System	0 - OFF
Legislative District	57B

STRUCTURE	
Service On	1 - Highway
Service Under	5 - Waterway
Main Span Type	
	8 - Masonry 12 - Arch
Main Span Detail	
Appr. Span Type	
Appr. Span Detail	
Skew	0
Culvert Type	10'ARCH & BOX
Barrel Length	29 ft.
Cantilever ID	

NUMBER OF SPANS		
MAIN: 1	APPR: 0	TOTAL: 1
Main Span Length	10.0	ft.
Structure Length	12.0	ft.
Deck Width (Out-to-Out)	0.0	ft.
Deck Material	N - Not Applicable	
Wear Surf Type	6 - Bituminous	
Wear Surf Install Year		
Wear Course/Fill Depth	1.50	ft.
Deck Membrane	0 - None	
Deck Rebars	N - Not Applicable (no deck)	
Deck Rebars Install Year		
Structure Area (Out-to-Out)	348	sq. ft.
Roadway Area (Curb-to-Curb)		sq. ft.
Sidewalk Width	Lt 0.00	ft. Rt 0.00
Curb Height	Lt 0.00	ft. Rt 0.00
Rail Type	Lt 00	Rt 00

ROADWAY	
Bridge Match ID (TIS)	0
Roadway O/U Key Route On Structure	
Route Sys	10 - MUN Number 22
Roadway Name or Description	MUN 22
Level of Service	1 - MAINLINE
Roadway Type	2 - 2-way traffic
Control Section (TH Only)	
Reference Point	003+00.950
Detour Length	4.0 mi
Lanes	On 2 Under 0
	ADT 568 Year 1986
HCA DT	0 ADTT 0 %
Functional Class	09 - Rural - Local

RDWY DIMENSIONS			
If Divided	NB-EB	SB-WB	
Roadway Width	26.00	ft.	ft.
Vertical Clearance		ft.	ft.
Max. Vert. Clear.		ft.	ft.
Horizontal Clear.		ft.	ft.
Lateral Clearance		ft.	ft.
Appr. Surface Width	26.0	ft.	
Bridge Roadway Width	0.0	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)	0 - UNKNOWN
Pier Foundation	N - N/A
(Material/Type)	N - N/A
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	1 - Object Markers
Vertical	N - Not Applicable

INSPECTION	
Userkey	128
Unofficial Structurally Deficient	Y
Unofficial Functionally Obsolete	N
Unofficial Sufficiency Rating	70.1
Routine Inspection Date	10/09/2012
Routine Inspection Frequency	12
Inspector Name	WSB & Associates
Status	A - Open

NBI CONDITION RATINGS	
Deck	N - Not Applicable
Unsound Deck %	
Superstructure	N - Not Applicable
Substructure	N - Not Applicable
Channel	6 - Bank slump; minor damage
Culvert	4 - Large spalls, heavy scaling,

NBI APPRAISAL RATINGS	
Structure Evaluation	4
Deck Geometry	N
Underclearances	N
Water Adequacy	7 - Slight Chance of Overtop
Approach Alignment	8 - Equal to present desirabl

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

IN DEPTH INSP.		
	Y/N	Date
Frac. Critical		
Underwater		
Pinned Asbly.		
Spec. Feat.		

WATERWAY	
Drainage Area (sq. mi.)	
Waterway Opening	16 sq. ft.
Navigation Control	0 - No nav. control on waterw
Pier Protection	
Nav. Clr. (ft.)	Vert. ft. Horiz. ft.
Nav. Vert. Lift Bridge Clear. (ft.)	
MN Scour Code	E - CULVERT Year 1994

CAPACITY RATINGS	
Design Load	0 - Other/Unknown
Operating Rating	2 - AS HS 27.0
Inventory Rating	2 - AS HS 18.0
Posting VEH:	SEMI: DBL:
Rating Date	11/1/1997

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

MnDOT Structure Inventory Report

Additional Roadways

Bridge ID: L8167

TRADG PT TR S (22) over STREAM

Date: 11/09/2012

MnDOT BRIDGE INSPECTION REPORT

11/09/2012

Inspector: WSB & Associates

BRIDGE L8167 TRADG PT TR S (22) OVER STREAM

ROUTINE INSP. DATE: 10/09/2012

County: Washington Location: 0.1 MI S OF JCT CSAH 18 Length: 12.0 ft.
 City: Afton Route: 10 - MUN 22 Ref. Pt.: 003+00.950 Deck Width: 0.0 ft.
 Township: Control Section: Rdwy. Area/ Pct. Unsnd: sq. ft. / %
 Section: 28 Township: 028N Range: 20W Maint. Area: Paint Area/ Pct. Unsnd: sq. ft. / %
 Span Type: 8 - Masonry 19 - Culvert (includes Local Agency Bridge Nbr.: Culvert: 10'ARCH &BOX
 List: frame culverts) Postings:
 NBI Deck: N Super: N Sub: N Chan: 6 Culv: 4
 Open, Posted, Closed: A - Open
 MN Scour Code: E - CULVERT

Appraisal Ratings - Approach: 8 Waterway: 7 Unofficial Structurally Deficient Y
 Required Bridge Signs - Load Posting: 0 - Not Required Traffic: 0 - Not Required Unofficial Functionally Obsolete N
 Horizontal: 1 - Object Markers Vertical: N - Not Applicable Unofficial Sufficiency Rating 70.1

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
241	Reinforced Concrete Culvert	2	Routine	10/09/2012	8 LF	0	8	0	0	N/A
			Routine	01/06/2012	8 LF	0	8	0	0	N/A
Notes: 2012 - Minor Cracking										
243	Masonry, Other or Combination Material Culvert	2	Routine	10/09/2012	20 LF	0	0	16	4	N/A
			Routine	01/06/2012	20 LF	0	0	16	4	N/A
Notes: Stone Arch / Masonry [2010] some stones and grout missing. 2012 - Masonry arch needs tuck pointing.										
387	Reinforced Concrete Wingwall	2	Routine	10/09/2012	4 EA	0	4	0	0	N/A
			Routine	01/06/2012	4 EA	0	4	0	0	N/A
Notes: 2012 - Minor Cracking										
964	Critical Finding Smart Flag	2	Routine	10/09/2012	1 EA	1	0	N/A	N/A	N/A
			Routine	01/06/2012	1 EA	1	0	N/A	N/A	N/A
Notes: DO NOT DELETE THIS CRITICAL FINDING SMART FLAG.										
981	Signing	2	Routine	10/09/2012	4 EA	4	0	0	0	0
			Routine	01/06/2012	4 EA	4	0	0	0	0
Notes: [2007] End markers added.										
987	Roadway over Culvert	2	Routine	10/09/2012	1 EA	1	0	0	N/A	N/A
			Routine	01/06/2012	1 EA	1	0	0	N/A	N/A
Notes: < none >										

General Notes:

58. Deck NBI:

36A. Brdg Railings NBI:

36B. Transitions NBI:

36C. Appr Guardrail NBI:

36D. Appr Guardrail

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
	Terminal NBI:									
	59. Superstructure NBI:									
	60. Substructure NBI:									
	61. Channel NBI:									
	62. Culvert NBI:									
	71. Waterway Adeq NBI:									
	72. Appr Roadway Alignment NBI:									
	Inventory Notes:									

Barritt Lovelace
Inspector's Signature

Reviewer's Signature

Pictures



Photo 1 - west headwall looking east



Photo 2 - missing stones near West Headwall

Pictures



Photo 3 - masonry barrel looking east



Photo 4 - masonry barrel looking northeast

Pictures



Photo 5 - masonry barrel looking southeast



Photo 6 - east headwall looking west

Pictures



Photo 7 - Roadway over culvert looking south



Photo 8 - channel looking east

Pictures



Photo 9 - channel looking west



1. P1020390.JPG



2. P1020391.JPG



3. P1020392.JPG



4. P1020393.JPG



5. P1020394.JPG



6. P1020395.JPG



7. P1020396.JPG



8. P1020397.JPG



9. P1020398.JPG

Culvert

Bridge No.: L8167

Culvert

<i>Item</i>	<i>Description</i>	<i>Condition</i>	<i>Comments</i>
Culvert Overall:	NBI Item 62	<u>4</u>	

MnDOT Scour Code: E - CULVERT

Waterway Inspection

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 erosion of the embankment around the headwalls?
3.	<u>Yes</u>	Is there any indication of cracking or settlement of the culvert barrel or headwalls?
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>	Do scour measurements indicate that the streambed is below the bottom of the cutoff walls at the ends of the culvert?
6.	<u>No</u>	Is there evidence of distress in the roadway or approaches such as cracks in the pavement and sags in the guardrail or roadway? Also, is there cracking, erosion, or failure of the side slopes at or adjacent to the culvert?
7.	<u>No</u>	Is there an indication of "piping" of water along the outside of the culvert such as cavities adjacent to the barrel?
8.	<u>No</u>	Is the culvert without a bottom and scour measurements indicate that the streambed is below the plan streambed elevations?
9.	<u>NA</u>	Has the riprap or other scour protection been damaged or otherwise made ineffective?
10.	<u>NA</u>	If the culvert was designed to be buried (fill inside the culvert), is the material still in the barrel?

Notes:

- Streambed sounding data is to be documented.
- Soundings of the streambed should be done at each end of the culvert. If Items #5 or #8 are "Yes", then a streambed profile of the scoured area should be done.
- If "Yes" is the answer to any items on the checklist, notify the Program Administrator for further instructions.

Comments: Dry creekbed.

Completed On 10/09/2012 By BRL