

STATEWIDE BRIDGE SURVEY FORM

MNDOT No.: L-6322

Historic Name: Frank's Ford Bridge or Red Bridge

Common Name: Frank's Ford Bridge

Owner: Olmsted County

Year Built: 1895

Engineer:

Fabricator: Chicago Bridge & Iron Co. [Horace E. Horton]

Contractor: Chicago Bridge & Iron Co. [Horace E. Horton]

Location

County: Olmsted

City/Township: Oronoco T.

Legal Description: Section 26, Township 108N, Range 14W

Crossing: County road 121 over South Fork Zumbro River [bridge closed to traffic]

Sketch Diagram

See attached field sheet

Technical Data

Category: steel through truss

Span No./Type: single-span Pratt through truss with three approach spans

Overall Width x Overall Length: 16.0 x 149.5 feet

SignificanceLocal State National

Historic Context: Historic Iron and Steel Bridges in Minnesota, 1873-1945

Integrity: Excellent Good Fair Poor No. of Resources with Property: 1 contributing structure(s) non-contributing structure(s)Summary Description

Bridge L-6322 is 1.4 miles east of county road 112 and carries county road 121 over the South Fork of the Zumbro River.

STATEWIDE BRIDGE SURVEY INVENTORY FORM, CONTINUED: L-6322

Summary Description Continued

Bridge L-6322 is an iron or steel, single-span, five-panel pin-connected Pratt through truss, with three approach spans. Superstructure: The upper chord consists of paired channels with continuous cover plates riveted on top and lacing underneath. The lower chord and diagonals in the 2d and 4th panels are all paired punched eye-bars. Diagonals in the 3d panel are paired turnbuckles. Hip verticals are paired forged eye-bars; main verticals consist of two sets of lacing perpendicular to each other and intertwined, riveted to two angle sections. The floor is comprised of wood planks on I-beam stringers (with channels on the outside edges), resting on the upper flanges of the I-beam floor beams, which in turn are riveted to plate extensions of the verticals, or below the hip verticals, are riveted to plate hangers. Portal bracing, of angle sections, peaks above the level of the main truss. Sway bracing is paired angles. Top and bottom lateral bracing is round rods. The main span rests of two piers, each consisting of two concrete-filled metal cylinders with turnbuckle cross-braces. The railing is of angle sections. There is no movable end. Approach spans: The one at the west end is an I-beam stringer span. The two spans at the east end are of recent pile-bent construction with I-beam stringers. This wood pile trestle approach replaced a four-span approach supported by bents of two verticals (of paired channels connected by batten plates on both sides) on concrete pads. The bridge abutments are comprised of random-coursed rough-cut limestone, with poured concrete added in places.

Sources of Information

"MNDOT Structure Inventory," for Br. L-6322, 1983; file on Br. L-6322 in S.H.P.O. files.

Date of Survey: November, 1987

Surveyor: Dale Martin
Historian
Renewable Technologies, Inc.
Butte, MT

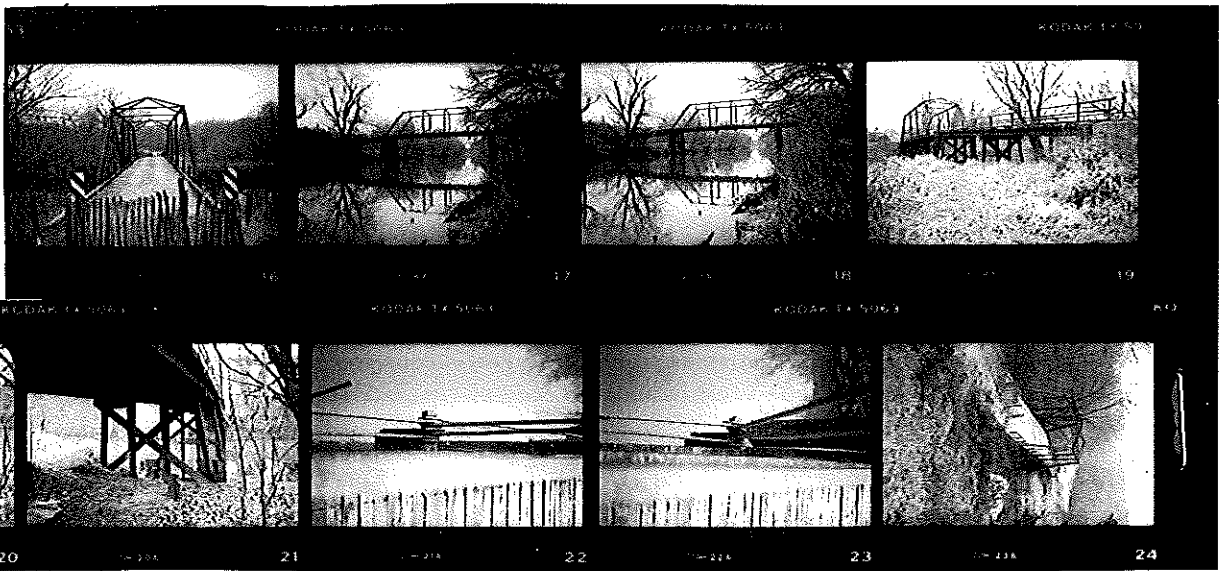
STATEWIDE BRIDGE SURVEY: PHOTO CONTACT SHEET RECORD, Br. No. L-6322

Contact Sheet # 09125

November, 1987

Photographer: Dale Martin

Frame No.	Bridge No.	County	City/ Township	Subject	Camera Facing
15A.	L-6322	Olmsted	Oronoco T.	portal view	E
16A.	"	"	"	north elevation	S
17A.	"	"	"	north elevation	S
18A.	"	"	"	3/4 view	NW
19A.	"	"	"	east approach spans	W
20A.	"	"	"	east approach spans	W
21A.	"	"	"	lower panel intersection	
22A.	"	"	"	lower panel intersection	
23A.	"	"	"	view from hillside	E



COUNTY: OLMSTED TOWNSHIP/ CITY: ORONOCO

PLAQUE NONE

BRIDGE NAME: L6322

LOCATION: _____

(APPROX) YR. BLT: _____

CARRIES COUNTY 121 **[CLOSED]** OVER S. FORK ZUMBRO R.

1 MAIN SPAN(S) PRATT THROUGH TRUSS

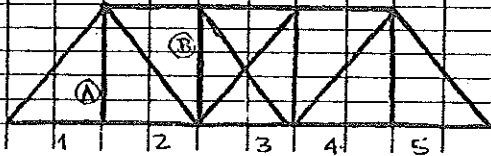
1 APPROACH SPAN(S) W. END I-BEAM STRINGERS BETW ABUT. & MAIN PIER

2 APPROACH SPAN(S) E. END: MODERN PILE-BENT TRESTLE W/ I-BEAM STRINGERS

30 CONG. PADS FOR FORMER (PIERS) UNDER WEST OF THESE SPANS

DOES ANY UNDER SAND? MORE

FORMER EAST FOUR APPROACH SPANS ONCE HAD 2 VERTICALS OF 1 PER BENT



MEMBER DESCRIPTION:

SUPERSTRUCTURE:

✓ LOWER CHORD: **PAIRED PUNCHED EYEBARS**

✓ VERTICALS: **PAIRED ROUND-ROD EYEBARS** (A) (B)

✓ DIAGONALS: **PAIRED PUNCH. EYEBARS** (PANELS 2, 4) / (PANEL 3) **PAIRED ROUND-ROD TURNBUCKLES**

RAILING:

ANGLE SECT

✓ UPPER CHORD: **JE** CONT

SUBSTRUCTURE: **ABUTS: RANDOM-COURSED**

ROUGH-CUT LIMESTONE, W/ CONCR. SILL UNDER DECK

(ON E. ABUT: RECESSED BEHIND STONE FACE)

W. PIER: 2 RIVETED METAL CYLINDERS (CONG-FILLED) WITH #1 I-BEAM STRUT (HORIZ) & ROUND ROD TURNBUCKLE X-BRACES AND AGENT STRUTS

E. PIER SAME EXCEPT NO I-BEAM STRUT (NO LBS. AT TOP OF CYL.)

TYPE OF MOVABLE END BOTH ENDS FIXED

CONNECTIONS: FLOOR BM. TO SUPERSTR. →

FLR. BMS. RIVETED TO PLATE SUSPENDED FROM PIN-CONN. ON TWO MIDDLE FLR. BMS. THIS PLATE IS ALSO RIVETED TO LOW. END OF VERTICAL

PANEL INTERSECTIONS PIN-CONN

STRINGERS TO FLR. BMS REST ON

FLOOR SYSTEM: FLOOR BMS. I-BEAMS

STRINGERS I-BEAMS ... & ... CHANNELS ON EACH EDGE

DECK WOOD PLANKS

LATERAL BRACING:

PORTAL ANGLE SECT

SWAY PAIRED ANGLES

X - RODS

FLOOR X ROUND RODS

PORTAL SWAY FLOOR

